STR-A17/D159

SERVICE MANUAL

STR-A17 and STR-D159 are the tuner and amplefier section in LBT-A17CDM and LBT-159CD/ D220CD respectively.

Photo : STR-D159

US Model
Canadian Model
AEP Model
UK Model
STR-D159
E Model
Australian Model
PX Model
STR-A17

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

For US Model :
POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
with 6 ohm loads both channel driven, from 40 - 20,000 Hz; rated 25 watts per channel minimum RMS power, with no more than 0.5% total harmonic distortion from 250 milliwatts to rated output.

Stereo FM-AM receiver

Tuner

System: FM stereo, FM/AM superheterodyne tuner

FM tuner section
- Tuning range: 87.5 to 108 MHz
- Antenna: 300 ohms balanced, 75 ohms unbalanced

Intermediate frequency: 10.7 MHz

AM tuner section
- MW : 530 to 1710kHz (US, CND model)
- : 522 to 1611kHz (IT, G model)
- : 531 to 1602kHz (9kHz step) } (E, PX, AUS model)
- : 531 to 1710kHz (10kHz step) }
- : 531 to 1602kHz (Other models)
- LW : 153 to 279kHz
- SW : 5.95 to 17.90MHz (Mideasten model)
- Antenna: AM loop antenna, External antenna terminal
- Intermediate frequency: 4501kHz

Amplifier

Input	Jack type	Sensitivity	Impedance
VIDEO IN	Phono	300 mV	47 kilohms
PHONO	Phono	3 mV	47 kilohms

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereo phone	Accepts headphones of 8 ohms or more

Frequency response: VIDEO: 15 Hz to 50 kHz $^{+0}_{-3}$ dB

General

Power requirements:
- 120V AC, 60Hz (US/CND model)
- 220-230V, 50/60Hz (AEP/G/IT model)
- 240V AC, 50Hz (UK model)
- 110-120V/220-240V 50/60Hz (E, PX, AUS model)

Power consumption:
- 115W (US/CND model)
- 90W (AEP/UK/G/IT model)
- 110W (E/AUS/PX model)

Mass: Approx. 5.7 kg (12 lb 10 oz)

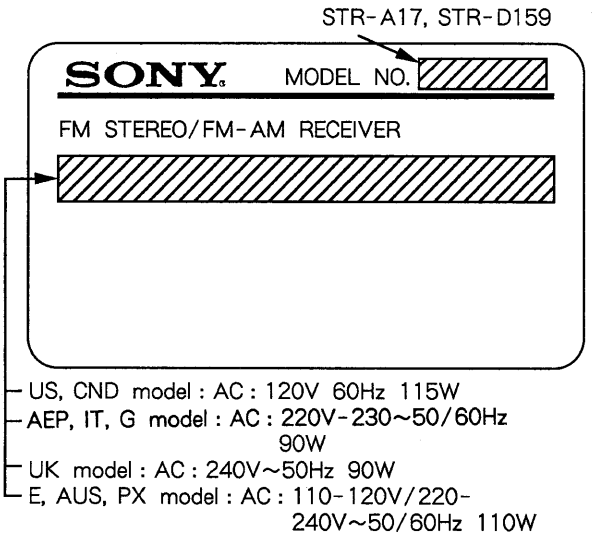
Dimensions: Approx. 355 x 225 x 330 mm (14 x 8 7/8 x 13 inches) (w/h/d, including projections)

STEREO FM-AM RECEIVER

SONY®

— MODEL IDENTIFICATION —

(Specification Label)


STR-A17, STR-D159
SONY
MODEL NO.
FM STEREO/FM-AM RECEIVER
US, CND model : AC : 120V 60Hz 115W
AEP, IT, G model : AC : 220V-230~50/60Hz 90W
UK model : AC : 240V~50Hz 90W
E, AUS, PX model : AC : 110-120V/220-240V~50/60Hz 110W

Note : CND : Canadian model
IT : Italian model
AUS : Australian model
G : German model

- **CAUTION**

Be sure to use insulation sheet (⚠4-959-364-01) when replacing power transformer because it is safely related part.

TABLE OF CONTENTS

Section	Title	Page
1. GENERAL		3
2. DISASSEMBLY		
2-1.	Front Panel	4
2-2.	Panel Board	4
2-3.	Power Amplifier Board	5
2-4.	Main/Tuner Board	5
3. ADJUSTMENTS		6
4. DISASSEMBLY		
4-1.	Schematic diagram —Tuner Section—	7
4-2.	Printed Wring Board —Main Section—	11
4-3.	Schematic Diagram —Main Section—	15
4-4.	Schematic Diagram —Display Section—	19
4-5.	Printed Wring Board —Display Section—	23
4-6.	Circuit Boards Location	26
4-7.	Semiconductor lead layouts	26
5. DISASSEMBLY		
5-1.	Front Panel Section	27
5-2.	Back Panel Section	28
6. ELECTRICAL PARTS LIST		30

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

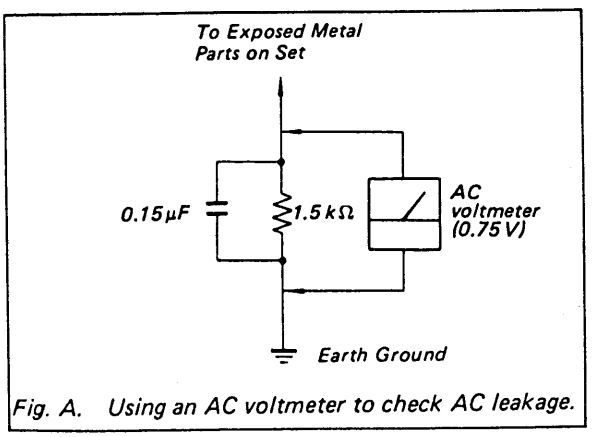
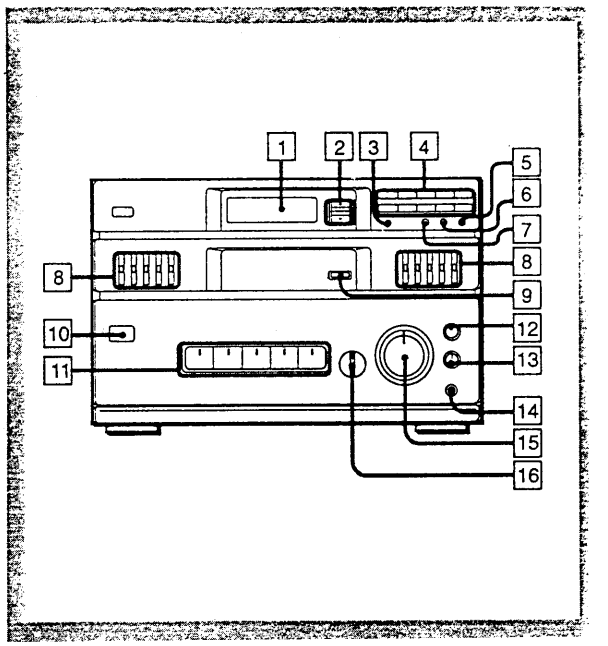


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1
GENERAL

This section is extracted from instruction manual.

Refer to the pages indicated in parentheses for details.



Tuner

[1] Display window
[2] DUAL MODE TUNING +/– buttons (pages 8, 9)
[3] MEMORY button (page 9)
[4] PRESET STATIONS Numeric buttons (page 9)
[5] SHIFT button (page 9)
[6] BAND SELECT button (page 8)
[7] ST/MUTE button (page 8)

Graphic Equalizer

[8] 5 BAND GRAPHIC EQUALIZER controls (page 6)
[9] EQUALIZER switch (page 6)

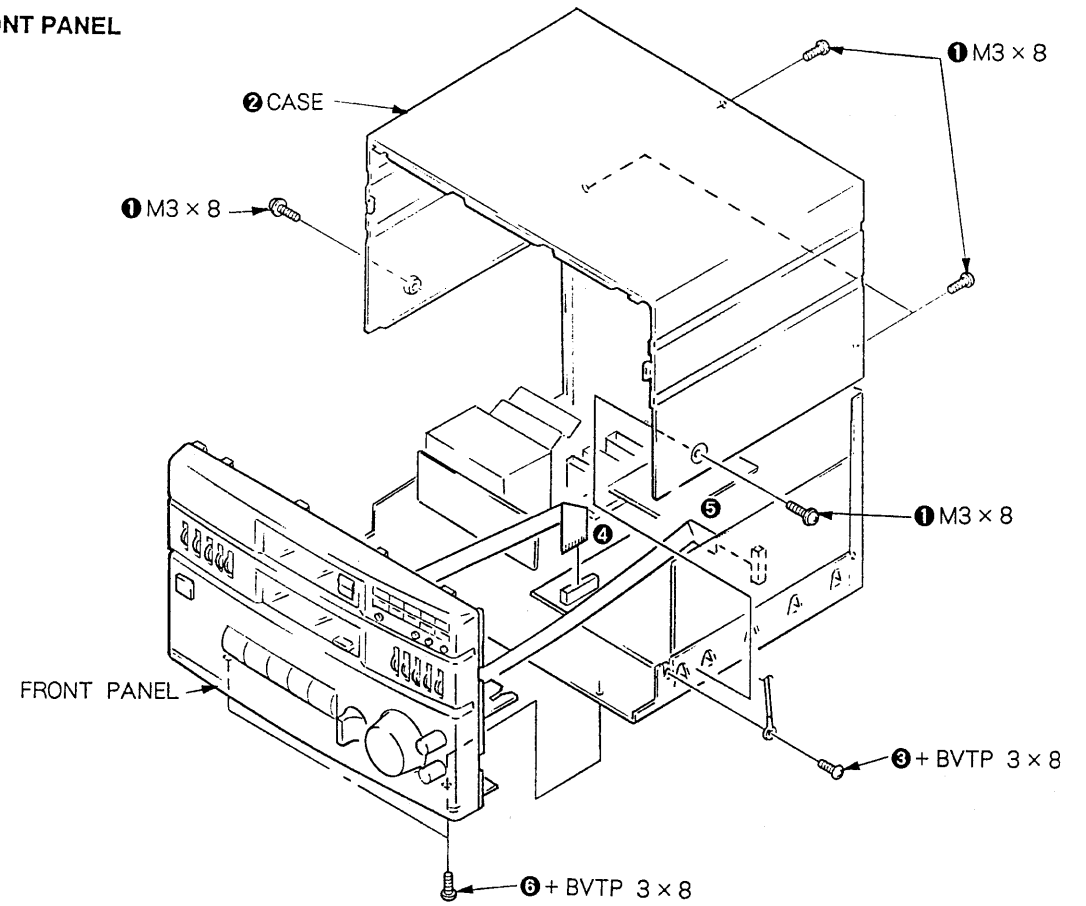
Amplifier

[10] POWER switch (page 5)
[11] Function selectors and indicators (VIDEO/TAPE/CD/TUNER/PHONO)
[12] BALANCE control (page 6)
[13] SURROUND control (page 6)
[14] HEADPHONES jack (page 6)
[15] VOLUME control (page 6)
[16] DBFB (dynamic bass feedback) control (page 6)

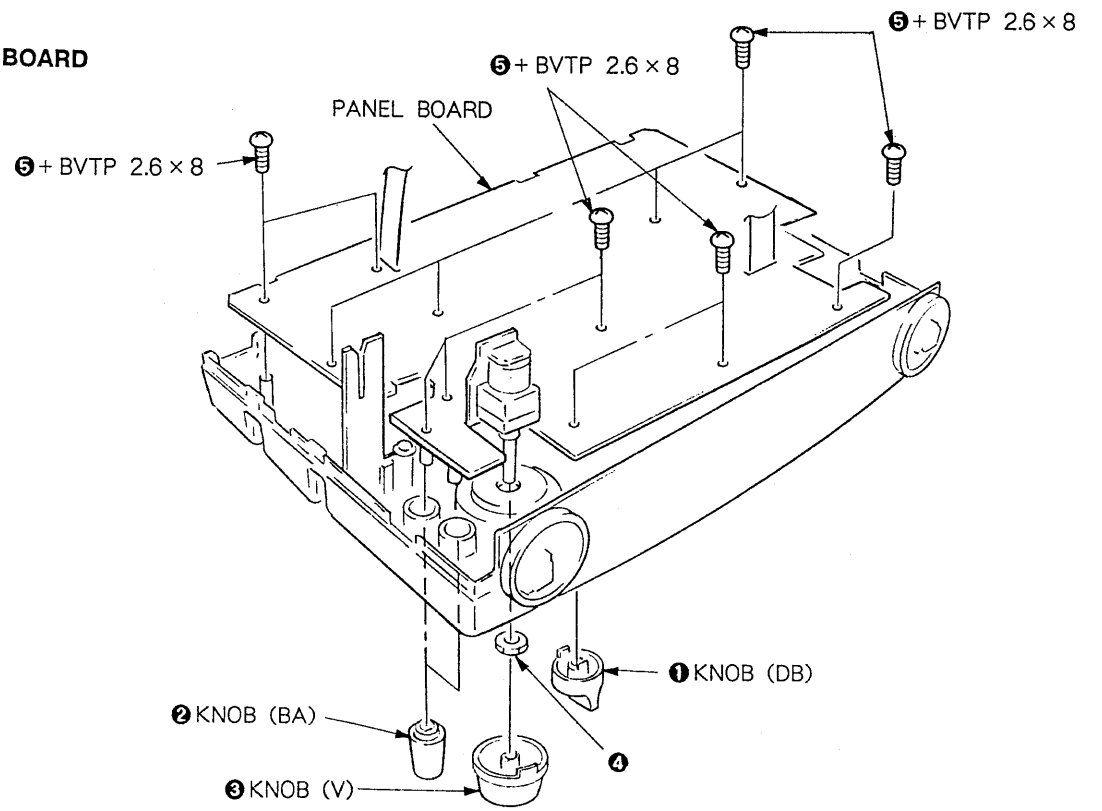
SECTION 2
DISASSEMBLY

NOTE : Follow the disassembly procedure in the numerical order given.

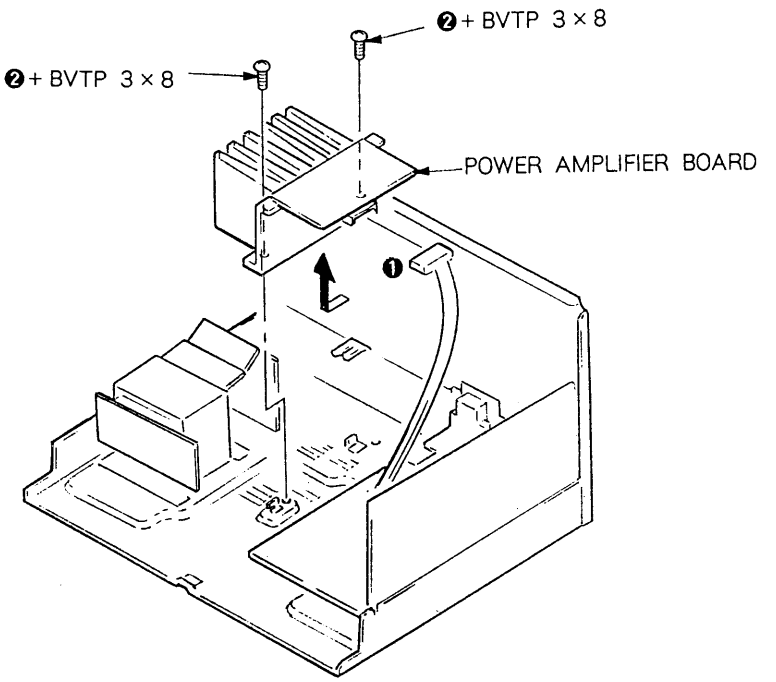
2-1. FRONT PANEL



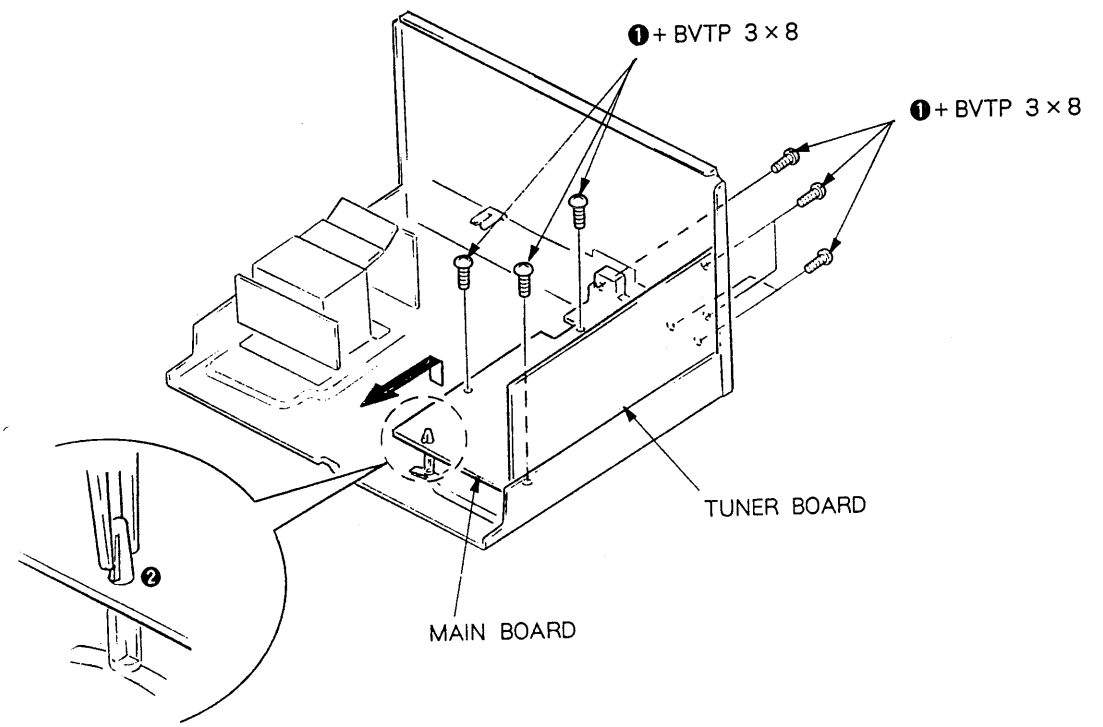
2-2. PANEL BOARD



2-3. POWER AMPLIFIER BOARD



2-4. MAIN /TUNER BOARD

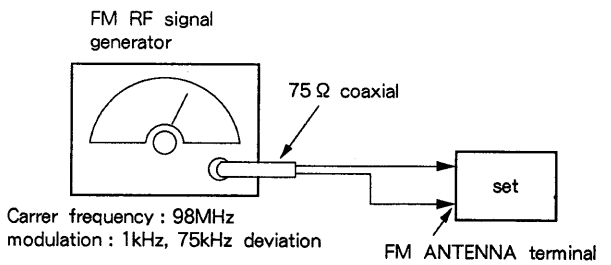


SECTION 3
ADJUSTMENTS

Note: As a front-end (FE301) is difficult to repair if faulty, replace it with new one.

TUNER SECTION

FM SECTION ADJUSTMENTS
Setting :



• TUNER OUT CHECK POINT
Speaker out receive 98MHz 60dB μ (1mV) and set the Speaker out to 10dBs by VOLUME.

Speaker load : 6 Ω both CH

FM NULL Adjustment
Procedure :
1. Supply a 60dB μ (1mV) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust T301 for 0V reading on the measurement point.

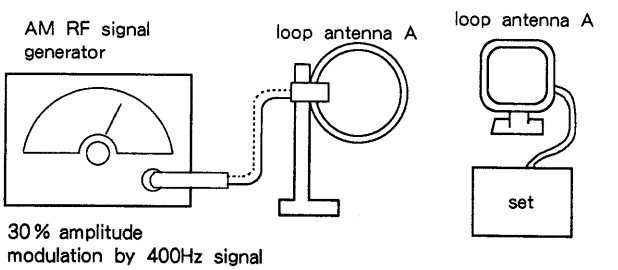
FM Tuned Indication Lighting Level Adjustment
Band : FM
ST/MUTE SW : OFF

Procedure :
1. Supply a 24 ± 1 μ V (25 ± 4dBμ) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust RV302 so that the FL601 TUNED light up.

Adjustment Location: tuner board

• Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by trimmer capacitors.

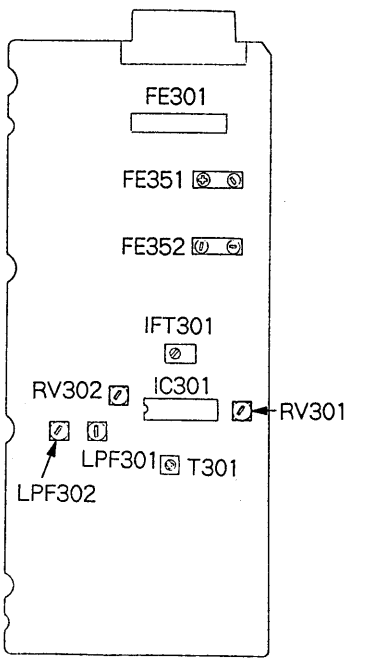
AM SECTION ADJUSTMENT
Setting :



AM Tuned Indication Lighting Level Adjustment
Band : AM

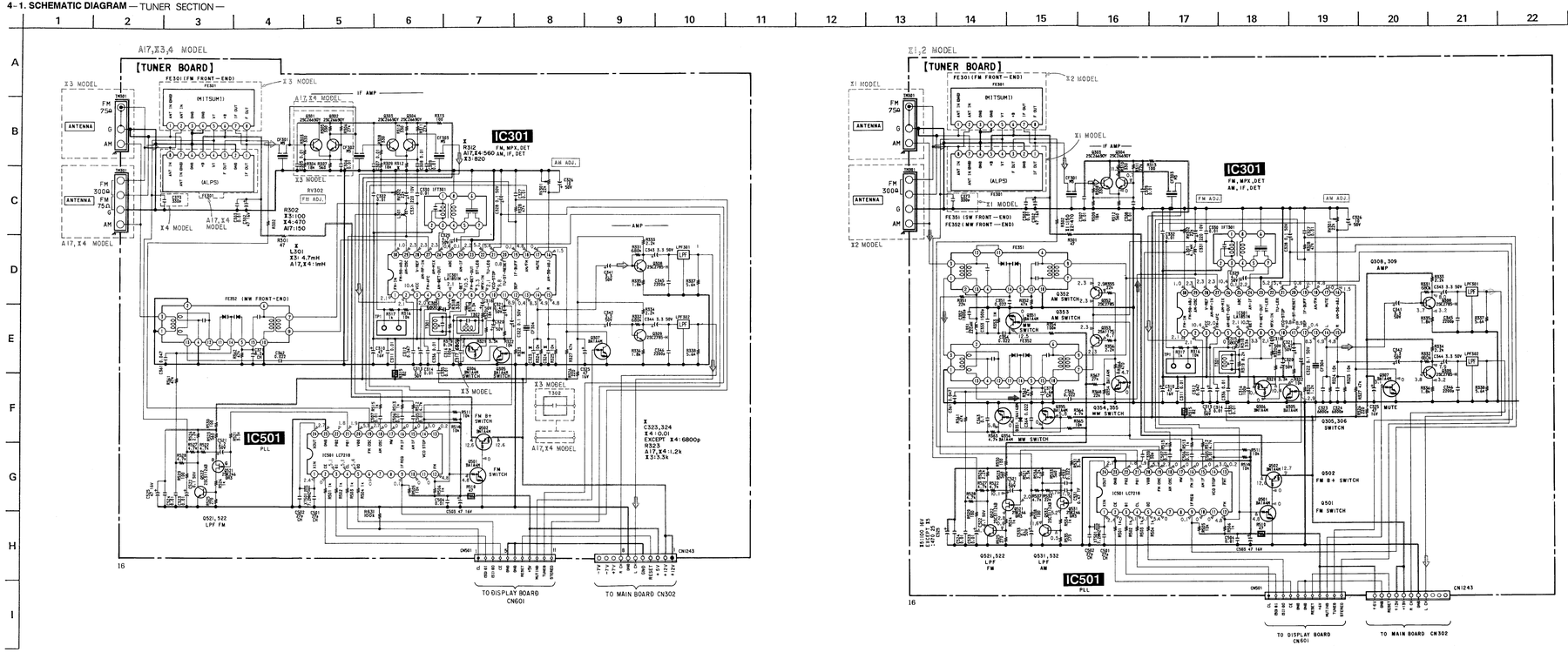
Procedure :
1. Set loop antenna input level to 94dBμ/m, 1050 kHz and no signal tuned light should not on.
2. Ture the set to 1050kHz
3. Adjust RV301 so that the FL601 TUNED light up.

Adjustment Location: tuner board (Component side)



SECTION 4
DIAGRAMS

4-1. SCHEMATIC DIAGRAM — TUNER SECTION —



Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ⅕ W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number sppecified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifie.

- : adjustment for repair.
- : B + Line.
- : B − Line.
  no mark : FM
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ⇨ : AM

◦ Model name and destination shown by ＊1 to ＊4.
＊1 : D159 : AEP, AE2
＊2 : D159 : UK
＊3 : D159 : Italian (IT), German (G)
＊4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)

4-2. PRINTED WIRING BOARD — MAIN SECTION —

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D351 (B)	E-6	IC1306	C-12
D1201	E-19	IC1601	J-19
D1202	E-15		
D1203	E-15	Q301 (E)	D-3
D1204	G-15	Q302 (E)	D-3
D1205	C-14	Q303 (E)	E-3
D1251	G-19	Q303 (B)	E-7
D1302	E-12	Q304 (E)	E-3
D1303	E-12	Q304 (B)	E-7
D1304	E-12	Q305 (E)	I-3
D1305	E-13	Q305 (B)	I-7
D1306	E-13	Q306 (E)	I-3
D1307	J-23	Q306 (B)	I-7
D1309	I-23	Q307 (E)	H-4
D1311	I-24	Q307 (B)	H-9
D1316	H-12	Q308 (E)	H-4
D1318	D-13	Q308 (B)	H-8
D1319	D-14	Q309 (E)	H-4
D1321	B-27	Q309 (B)	H-9
D1322	C-27	Q351 (B)	D-7
D1323	E-13	Q352 (B)	D-7
D1324	E-13	Q353 (B)	E-7
D1341	I-14	Q354 (B)	E-7
D1345	I-13	Q355 (B)	E-6
D1354	B-25	Q356 (B)	E-7
D1355	B-25	Q501 (E)	F-1
D1368	D-14	Q501 (B)	F-6
D1369	D-13	Q502 (E)	F-1
D1370	J-24	Q502 (B)	F-6
		Q521 (E)	C-4
IC301 (E)	G-2	Q521 (B)	C-9
IC301 (B)	G-7	Q522 (E)	B-4
IC501 (E)	E-4	Q522 (B)	B-9
IC501 (B)	E-9	Q531 (B)	D-8
IC1001	D-11	Q532 (B)	C-9
IC1002	G-11	Q1201	E-19
IC1003	I-11	Q1202	H-18
IC1201	F-20	Q1203	H-18
IC1202	F-15	Q1204	H-15
IC1302	J-12	Q1251	G-19
IC1303	I-14	Q1301	J-23
IC1304	H-13	Q1302	J-13
IC1305	H-14		

(B) : ＊1, 2

(E) : A17, ＊3, 4

Note on Mounting Diagram :

• ○—— : **Parts extracted from the component side.**

• ▬▬ : **Pattern on the side which is seen.**

• Model name and destination shown by ＊1 to ＊4.

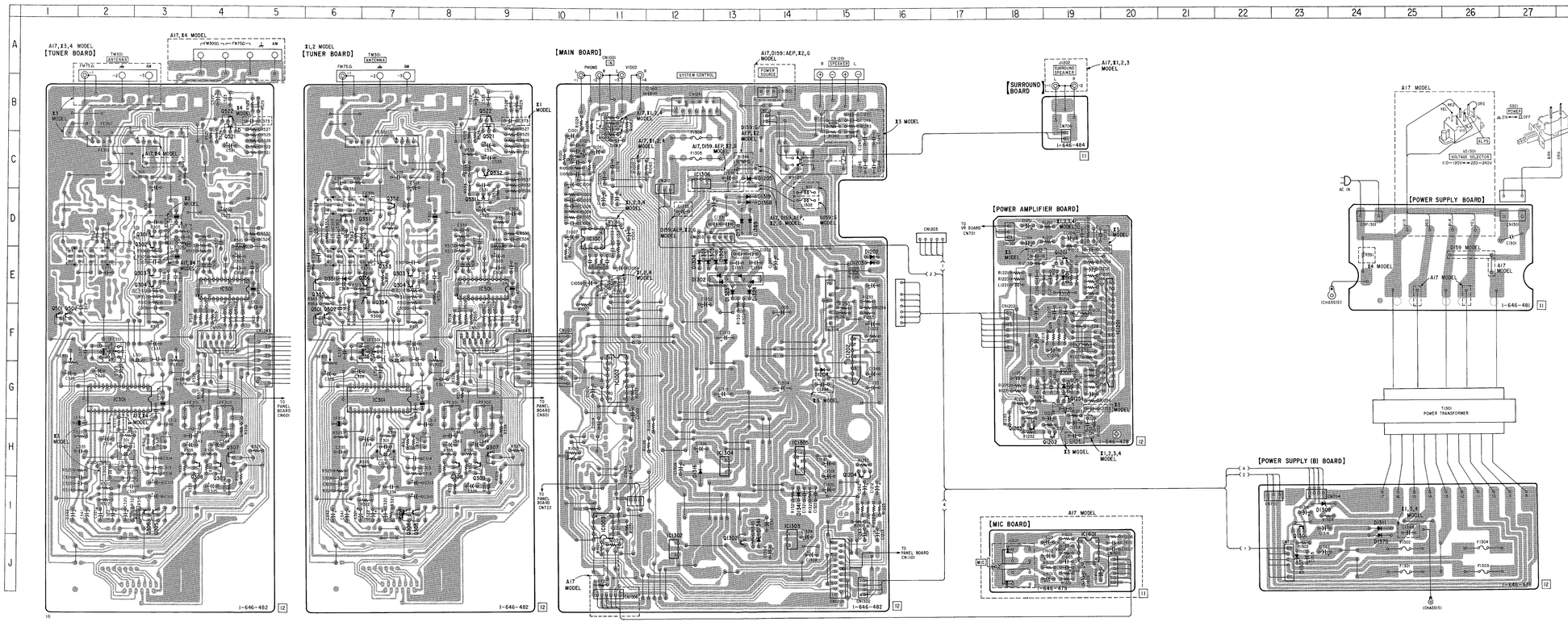
＊1 : D159 : AEP, AE2

＊2 : D159 : UK

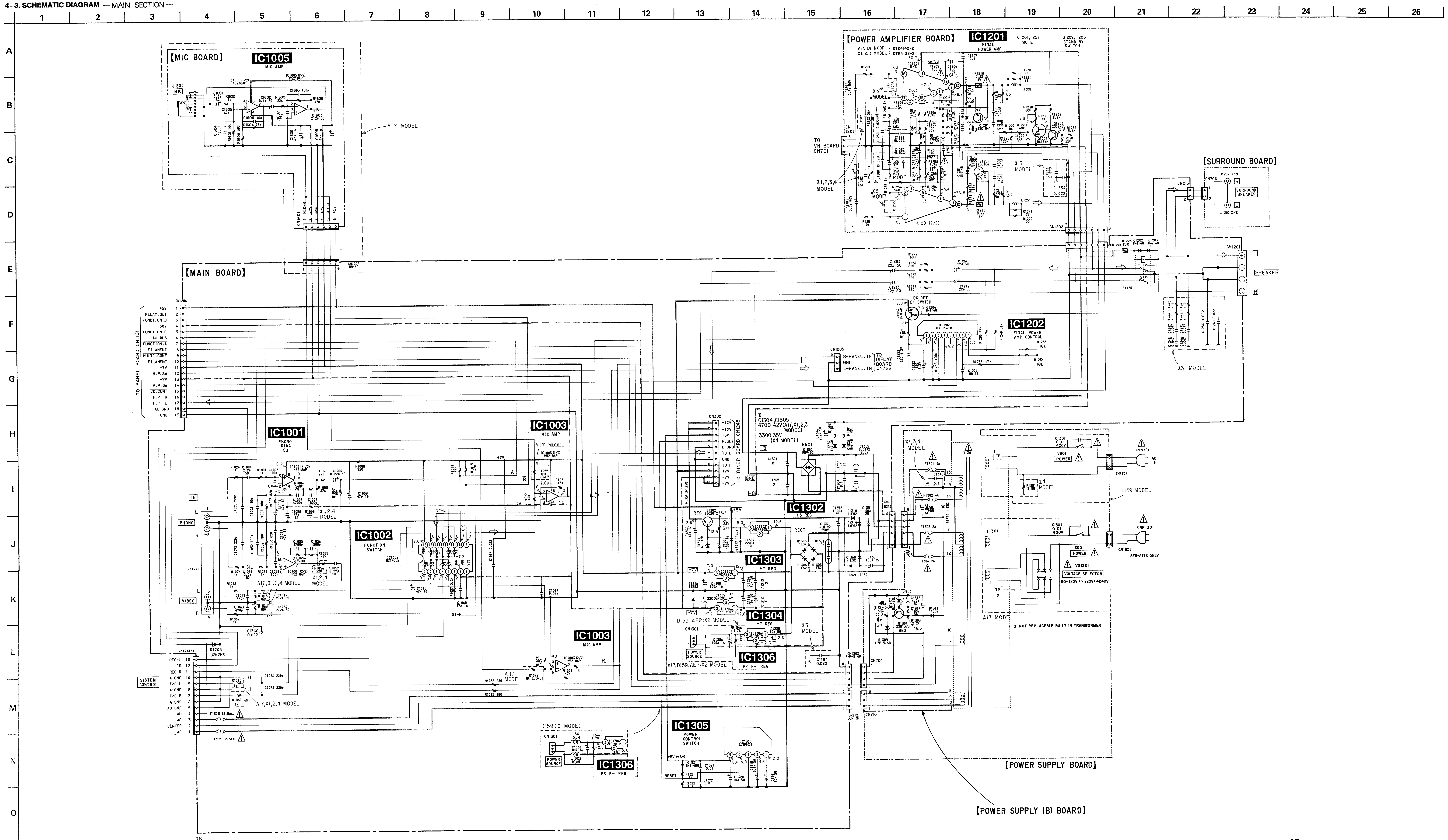
＊3 : D159 : Italian (IT), German (G)

＊4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)



4-3. SCHEMATIC DIAGRAM — MAIN SECTION —



Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ⊣⊠⊢ : nonflammable resistor.
- ⊣∿⊢ : fusible resistor.

Note:	Note:
The components identified by matk ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number sppecified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifie.

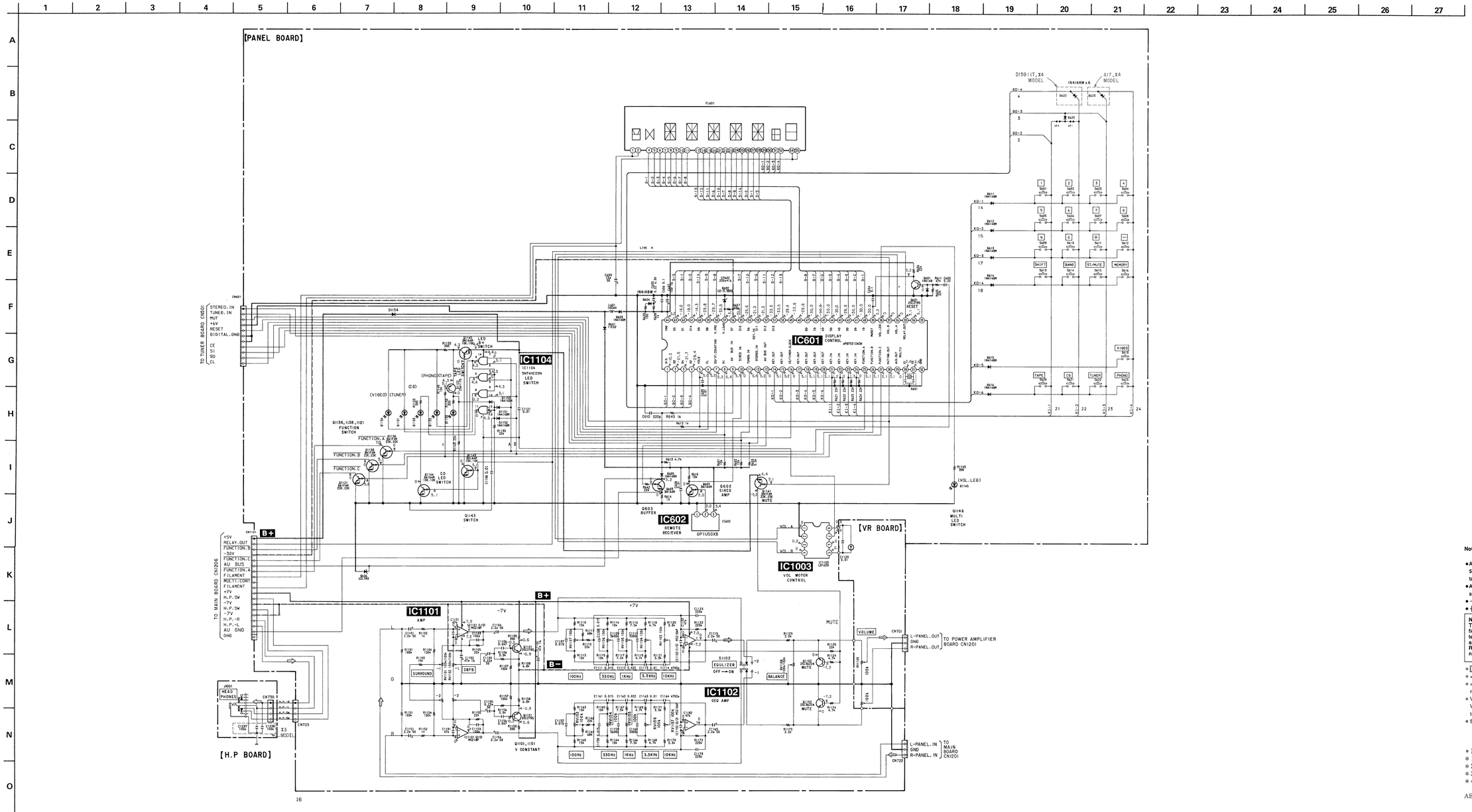
- ▭ : adjustment for repair.
- ▬ : B + Line.
- ▬ ▬ : B − Line.
  no mark : FM
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ➡ : AM

- Model name and destination shown by ∗1 to ∗4.

∗1 : D159 : AEP, AE2
∗2 : D159 : UK
∗3 : D159 : Italian (IT), German (G)
∗4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)

4-4. SCHEMATIC DIAGRAM — DISPLAY SECTION —



Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ▭: nonflammable resistor.
- ⏦: fusible resistor.

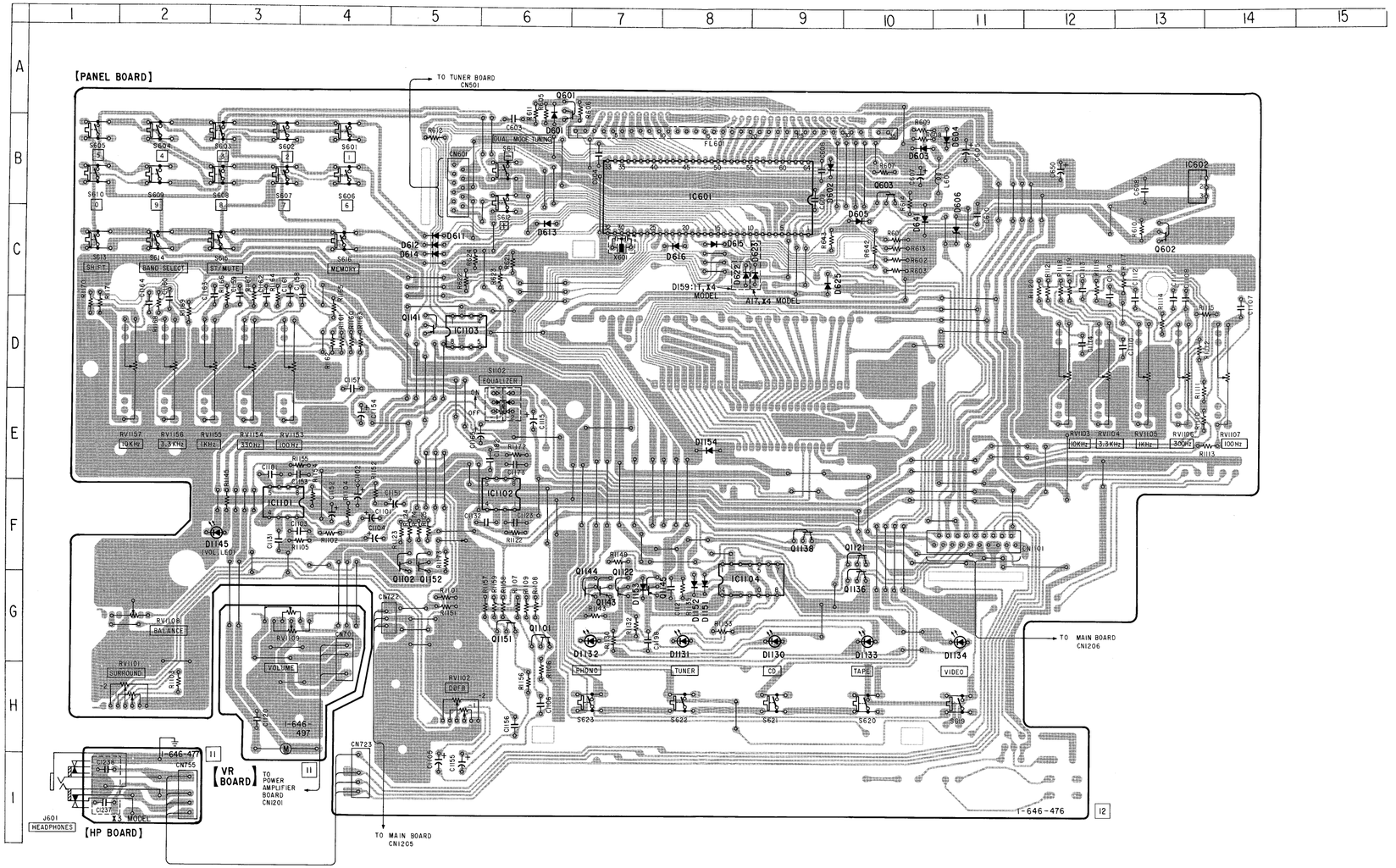
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Note: Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▭ : adjustment for repair.
- ——— : B + Line.
- ═══ : B − Line.
  no mark : FM
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ⇨ : AM

- Model name and destination shown by ＊1 to ＊4.
  ＊1 : D159 : AEP, AE2
  ＊2 : D159 : UK
  ＊3 : D159 : Italian (IT), German (G)
  ＊4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)

4-5. PRINTED WIRING BOARD — DISPLAY SECTION —



● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D601	B-6	D1154	E-8
D602	B-9		
D603	B-10	IC601	B-8
D604	B-11	IC602	B-13
D605	C-10	IC1101	F-3
D606	B-11	IC1102	F-6
D611	C-5	IC1103	D-5
D612	C-5	IC1104	G-8
D613	C-6		
D614	C-5	Q601	A-6
D615	C-8	Q602	C-13
D616	C-8	Q603	B-10
D622	C-8	Q1101	G-6
D623	C-9	Q1102	G-5
D625	C-9	Q1121	F-10
D641	C-10	Q1122	F-7
D1130	G-9	Q1136	G-10
D1131	G-8	Q1138	F-9
D1132	G-7	Q1141	D-5
D1133	G-10	Q1143	G-7
D1134	G-11	Q1144	F-7
D1145	F-3	Q1145	G-8
D1151	G-8	Q1151	G-6
D1152	G-8	Q1152	G-5
D1153	G-7		

Note on Mounting Diagram :

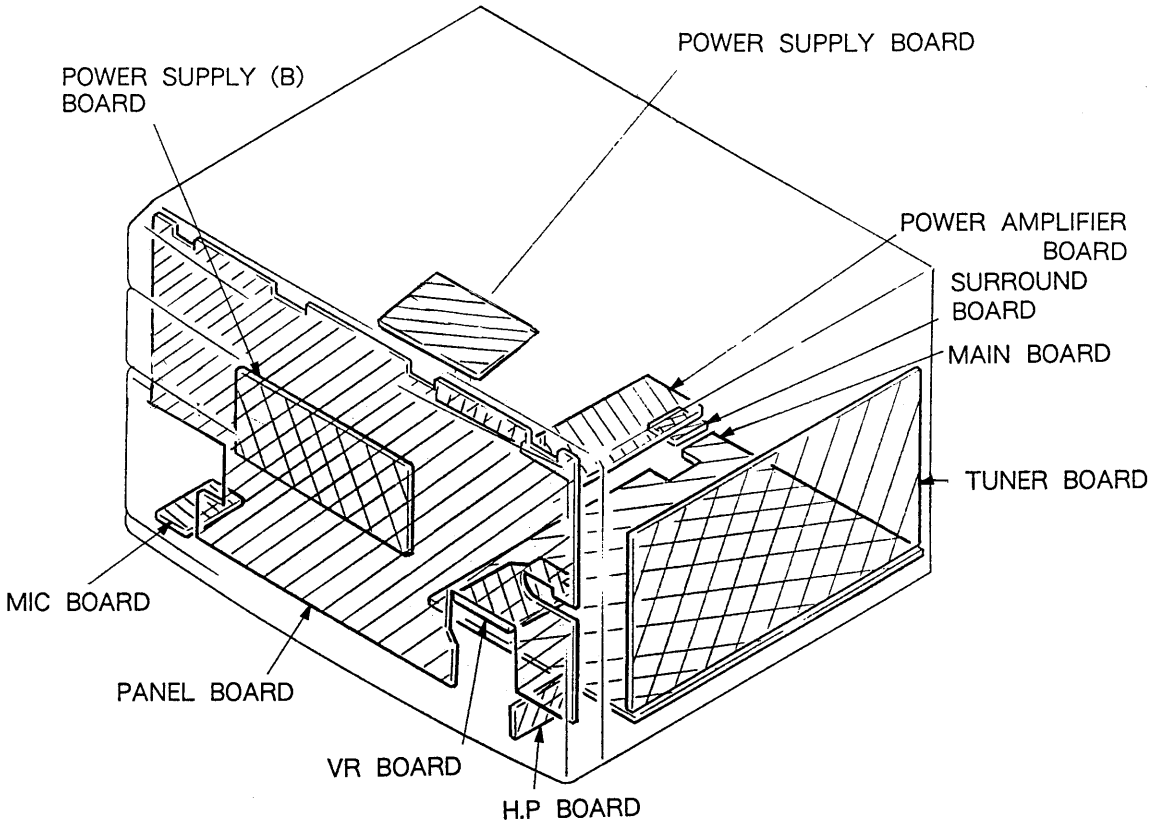
- ○—— : Parts extracted from the component side.
- ▨ : Pattern on the side which is seen.

- Model name and destination shown by ＊1 to ＊4.

＊1 : D159 : AEP, AE2
＊2 : D159 : UK
＊3 : D159 : Italian (IT), German (G)
＊4 : D159 : US, Canadian

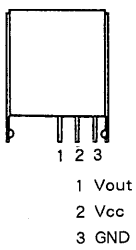
AE2 : AEP (with in PHONO MODEL)

4-6. CIRCUIT BOARDS LOCATION

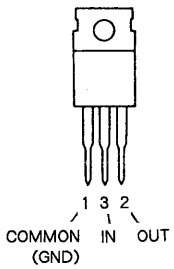


4-7. SEMICONDUCTOR LEAD LAYOUTS

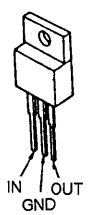
GP1U50XB



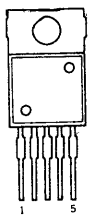
M5F79M07



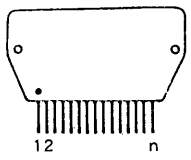
M5F7805
M5F7807L
M5F7812L



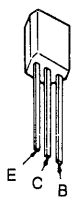
L78MR06



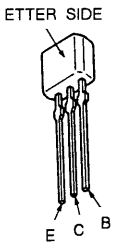
STK-4132MK2
STK-4142MK2



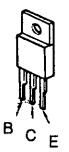
DTA114ES
DTC114ES
DTC124ES
2SC2603-EF
2SC2669-0Y
2SC3622A-LK



DTA124ES
2SA1175-HFE
2SC2785-HFE



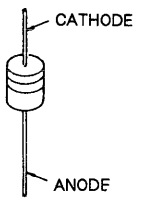
2SA473
2SD2012



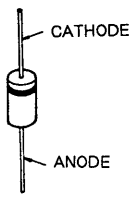
2SC1841-PAFAEA
2SC3112-B

2SK246-GR3

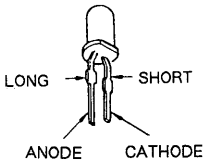
HZS7B3L
UZL-12M3
UZL-33L
UZL-5.8B
UZ-3.9BSB
11ES2



1N4148M



SEL2210S-CD
SEL3210S-CD



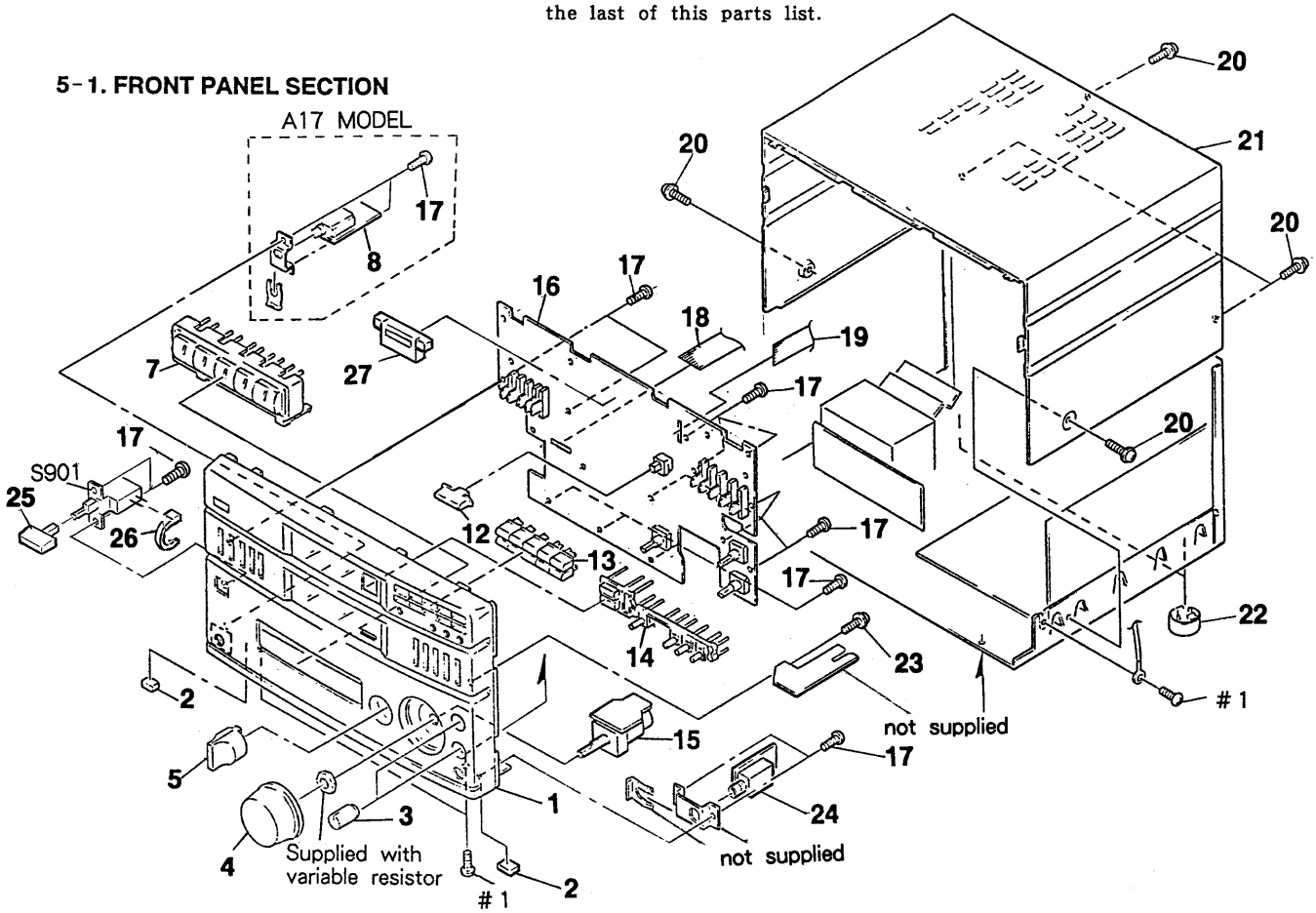
SECTION 5
EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example :
  KNOB, BALANCE (WHITE)...(RED)
  ↑ ↑
  Parts color Cabinet's color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.
- Model name and destination shown by *1 to *4.
  *1 : A27 : AEP, AE2
  *2 : A27 : UK
  *3 : D159 : Italian (IT), German (G)
  *4 : D159 : US, Canadian

  AE2 : AEP (with in PHONO MODEL)

5-1. FRONT PANEL SECTION

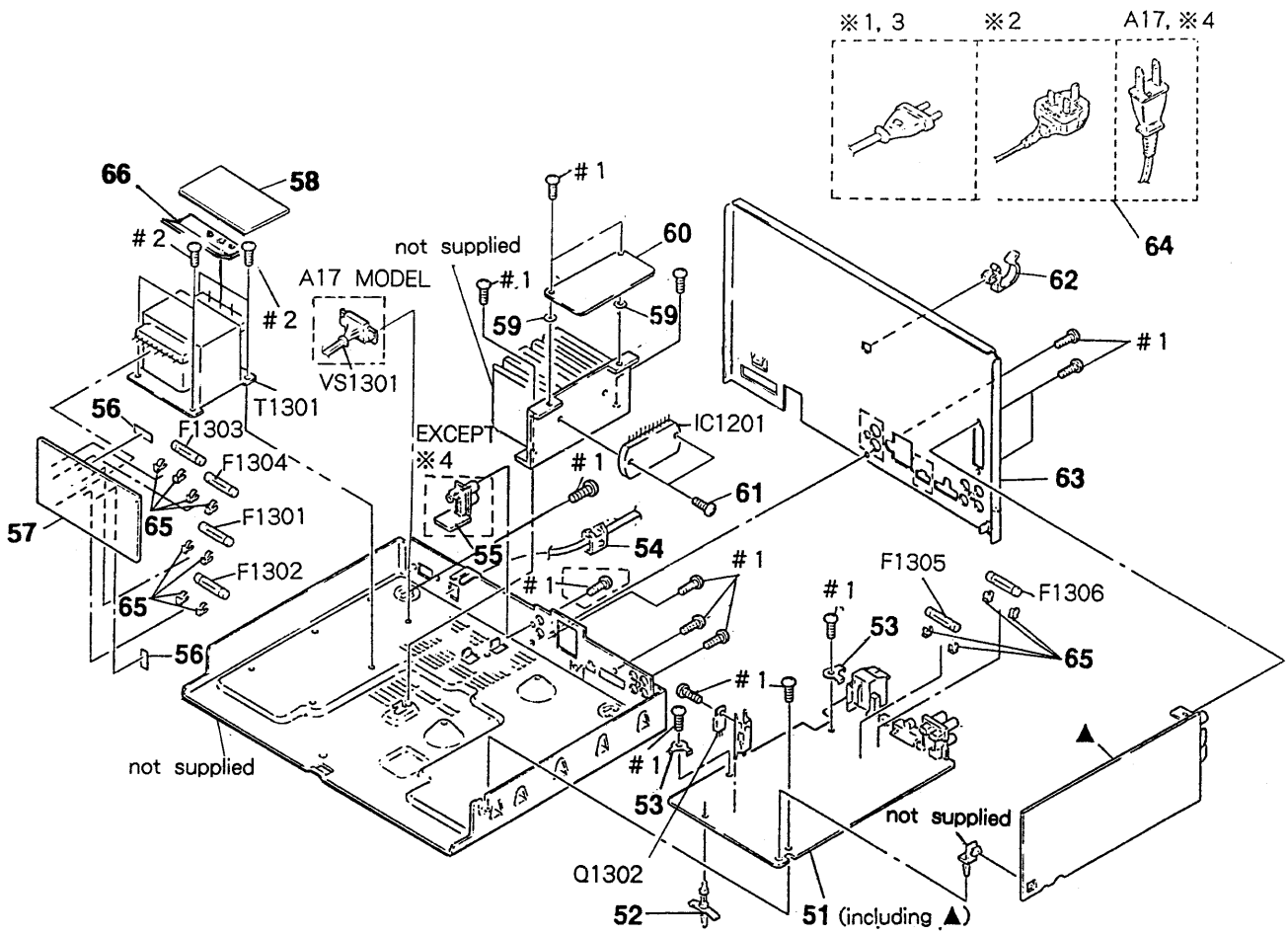


Ref. No.	Part No.	Description	Remarks
1	X-4943-178-1	PANEL ASSY, FRONT (D159)	
1	X-4943-188-1	PANEL ASSY, FRONT (A17)	
2	4-948-236-01	CUSHION (107)	
3	4-955-744-01	KNOB (BA)	
4	4-955-635-01	KNOB (V)	
5	4-955-636-01	KNOB (DB)	
7	X-4943-179-1	BUTTON (FU) ASSY	
* 8	1-646-479-11	MIC BOARD (A17)	
12	4-955-755-01	BUTTON (EQ)	
13	4-955-741-01	BUTTON (PR)	
14	4-955-745-01	BUTTON (ST)	
* 15	1-646-497-11	VR BOARD	
* 16	A-4356-667-A	PANEL BOARD, COMPLETE (D159:AEP, AE2)	
* 16	A-4356-679-A	PANEL BOARD, COMPLETE (D159:UK)	
* 16	A-4356-691-A	PANEL BOARD, COMPLETE (D159:US, CND)	

Ref. No.	Part No.	Description	Remarks
* 16	A-4356-702-A	PANEL BOARD, COMPLETE (A17)	
* 16	A-4356-711-A	PANEL BOARD, COMPLETE (D159:IT)	
* 16	A-4365-503-A	PANEL BOARD, COMPLETE (D159:G)	
17	4-951-620-01	SCREW (2.6X8), +BVTP	
18	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
19	1-590-576-11	WIRE, FLAT TYPE (11 CORE)	
20	3-704-366-01	SCREW (CASE) (M3X8)	
* 21	4-955-759-11	CASE	
22	X-4941-228-1	FOOT ASSY	
23	4-957-577-01	SCREW PTP WH (2.6X8) (DIA. 10)	
* 24	1-646-477-11	H.P BOARD	
* 25	4-930-783-11	BUTTON (PO) (POWER)	
26	3-701-748-00	CLAMP	
* 27	4-942-301-01	HOLDER, FL TUBE	
S901	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)	

5-2. BACK PANEL SECTION

▲ : TUNER BOARD



• **CAUTION**

Be sure to use insulation sheet (⚠4-959-364-01) when replacing power transformer because it is safely related part.

Ref. No.	Part No.	Description	Remarks
* 51	A-4356-678-A	MAIN BOARD, COMPLETE (D159:AEP)	
* 51	A-4356-690-A	MAIN BOARD, COMPLETE (D159:UK)	
* 51	A-4356-699-A	MAIN BOARD, COMPLETE (D159:US, CND)	
* 51	A-4356-705-A	MAIN BOARD, COMPLETE (A17)	
* 51	A-4356-715-A	MAIN BOARD, COMPLETE (D159:IT)	
* 51	A-4356-922-A	MAIN BOARD, COMPLETE (D159:AE2)	
* 51	A-4365-506-A	MAIN BOARD, COMPLETE (D159:G)	
* 52	4-924-098-31	HOLDER, PC BOARD	
* 53	4-942-204-01	PLATE, GROUND	
* 54	3-703-244-00	BUSHING (2104), CORD (A17:AUS, D159)	
54	3-703-571-11	BUSHING (S) (4516), CORD (A17:E, PX)	
* 55	1-646-484-11	SURROUND BOARD (A17/D159:AEP, AE2, UK, IT)	
* 56	3-701-946-26	LABEL (4A125V), FUSE (D159:US, CND)	
* 57	1-646-478-11	POWER SUPPLY (B) BOARD	
* 58	1-646-481-11	POWER SUPPLY BOARD	
59	3-564-542-00	WASHER, FIBER	
* 60	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE (A17)	
* 60	A-4356-677-A	POWER AMPLIFIER BOARD, COMPLETE (D159:AEP, AE2)	
* 60	A-4356-689-A	POWER AMPLIFIER BOARD, COMPLETE (D159:UK)	
* 60	A-4356-698-A	POWER AMPLIFIER BOARD, COMPLETE (D159:US, CND)	
* 60	A-4356-718-A	POWER AMPLIFIER BOARD, COMPLETE (D159:G, IT)	
61	4-928-635-11	SCREW, +BV (2.6X16) TAPPING	
* 62	4-949-235-01	HOOK (A17:E, PX/D159:US, CND, AEP, AE2, IT)	
* 63	4-955-760-11	PANEL, BACK (D159:AEP)	
* 63	4-955-760-21	PANEL, BACK (D159:UK)	
* 63	4-955-760-31	PANEL, BACK (D159:IT)	
* 63	4-955-760-51	PANEL, BACK (D159:US)	
* 63	4-955-760-61	PANEL, BACK (D159:CND)	
* 63	4-955-760-71	PANEL, BACK (D159:AE2)	
* 63	4-955-760-81	PANEL, BACK (D159:AE2)	

Ref. No.	Part No.	Description	Remarks
* 63	4-955-760-91	PANEL, BACK (A17:E)	
* 63	4-959-298-01	PANEL, BACK (A17:AUS)	
* 63	4-959-298-11	PANEL, BACK (A17:PX)	
* 63	4-961-575-01	PANEL, BACK (D159:G)	
⚠64	1-575-651-11	CORD, POWER (D159:AEP, AE2, IT, G)	
⚠64	1-575-653-11	CORD, POWER (A17:E, PX)	
⚠64	1-690-609-11	CORD, POWER (D159:US, CND)	
⚠64	1-696-570-21	CORD, POWER (D159:UK)	
⚠64	1-696-848-21	CORD, POWER (A17:AUS)	
65	1-533-217-31	HOLDER, FUSE	
⚠66	4-959-364-01	SPACER	
⚠F1301	1-532-350-00	FUSE 4A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1301	1-576-108-11	FUSE 4A (D159:US, CND)	
⚠F1302	1-576-108-11	FUSE 4A (D159:US, CND)	
⚠F1302	1-532-350-00	FUSE 4A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1303	1-532-203-00	FUSE 2A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1303	1-576-104-11	FUSE (D159:US, CND)	
⚠F1304	1-532-203-00	FUSE 2A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1304	1-576-104-11	FUSE (D159:US, CND)	
⚠F1305	1-532-286-00	FUSE 2.5A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1305	1-576-105-11	FUSE (D159:US, CND)	
⚠F1306	1-532-286-00	FUSE 2.5A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1306	1-576-105-11	FUSE (D159:US, CND)	
IC1201	8-749-900-96	IC STK-4142MK2 (A17, *4)	
IC1201	8-749-900-13	IC STK-4132MK2 (*1, 2, 3)	
Q1302	8-729-209-15	TRANSISTOR 2SD2012	
⚠T1301	1-423-434-11	TRANSFORMER, POWER (D159:AEP, AE2, UK, IT, G)	
⚠T1301	1-423-436-11	TRANSFORMER, POWER (A17)	
⚠VS1301	1-570-046-21	SWITCH, VOLTAGE CHANGE (A17)	

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN | **SURROUND**

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Model name and destination shown by ＊1 to ＊4.

＊1 : A27 : AEP, AE2
＊2 : A27 : UK
＊3 : D159 : Italian (IT), German (G)
＊4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- －XX, －X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL : metal-film resistor
  METAL OXIDE : Metal Oxide-film resistor
  F : nonflammable
- Items marked "＊" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example :
  uA... : μA... , uPA... , μPA... , uPB... , μPB... , uPC... , μPC... , uPD..., μPD...
- CAPACITORS :
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description			Remarks
＊	A-4356-705-A	MAIN BOARD, COMPLETE (A17)			
		＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊			
＊	A-4356-678-A	MAIN BOARD, COMPLETE (D159:AEP)			
		＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊			
＊	A-4356-922-A	MAIN BOARD, COMPLETE (D159:AE2)			
		＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊			
＊	A-4356-690-A	MAIN BOARD, COMPLETE (＊2)			
		＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊			
＊	A-4356-715-A	MAIN BOARD, COMPLETE (＊3)			
		＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊			
＊	A-4356-699-A	MAIN BOARD, COMPLETE (＊4)			
		＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊			
＊	A-4365-506-A	MAIN BOARD, COMPLETE (D159:G)			
		＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊			
＊	1-646-484-11	SURROUND BOARD (A17＊1, ＊2, ＊3)			
		＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊			
	1-533-217-31	HOLDER, FUSE			
＊	4-942-204-01	PLATE, GROUND			
		< CAPACITOR >			
C302	1-124-477-11	ELECT	47uF	20% 25V	
C303	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C305	1-161-379-00	CERAMIC	0.01uF	20% 25V	(＊3)
C306	1-161-379-00	CERAMIC	0.01uF	20% 25V	(＊3)
C307	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C308	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C309	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C310	1-124-477-11	ELECT	47uF	20% 25V	
C311	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C312	1-101-006-00	CERAMIC	0.047uF	50V	
C313	1-123-382-00	ELECT	3.3uF	20% 100V	
C314	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C315	1-161-329-00	CERAMIC	0.0068uF	30% 16V	
C316	1-162-282-31	CERAMIC	100PF	10% 50V	
C317	1-162-292-31	CERAMIC	680PF	10% 50V	(＊3)
C318	1-124-903-11	ELECT	1uF	20% 50V	
C320	1-124-903-11	ELECT	1uF	20% 50V	

Ref. No.	Part No.	Description			Remarks
C321	1-124-902-00	ELECT	0.47uF	20% 50V	
C322	1-124-463-00	ELECT	0.1uF	20% 50V	
C323	1-161-329-00	CERAMIC	0.0068uF	30% 16V	(A17, ＊1, 2, 3)
C323	1-161-379-00	CERAMIC	0.01uF	20% 25V	(＊4)
C324	1-161-329-00	CERAMIC	0.0068uF	30% 16V	(A17, ＊1, 2, 3)
C324	1-161-379-00	CERAMIC	0.01uF	20% 25V	(＊4)
C325	1-124-477-11	ELECT	47uF	20% 25V	
C326	1-124-907-11	ELECT	10uF	20% 50V	
C327	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C328	1-124-463-00	ELECT	0.1uF	20% 50V	
C329	1-124-927-11	ELECT	4.7uF	20% 100V	
C330	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C331	1-126-176-11	ELECT	220uF	20% 10V	
C332	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C335	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C336	1-161-379-00	CERAMIC	0.01uF	20% 25V	
C339	1-162-210-31	CERAMIC	30PF	5% 50V	(＊1, 2)
C341	1-123-382-00	ELECT	3.3uF	20% 100V	
C342	1-123-382-00	ELECT	3.3uF	20% 100V	
C343	1-123-382-00	ELECT	3.3uF	20% 100V	
C344	1-123-382-00	ELECT	3.3uF	20% 100V	
C345	1-161-375-00	CERAMIC	0.0022uF	20% 50V	
C346	1-161-375-00	CERAMIC	0.0022uF	20% 50V	
C351	1-161-494-00	CERAMIC	0.022uF	25V	(＊1, 2)
C352	1-102-120-00	CERAMIC	0.0018uF	10% 50V	(＊1, 2)
C353	1-161-374-11	CERAMIC	0.0015uF	20% 50V	(＊1, 2)
C354	1-161-494-00	CERAMIC	0.022uF	25V	(＊1, 2)
C361	1-164-098-11	CERAMIC	0.047uF	12V	
C362	1-161-494-00	CERAMIC	0.022uF	25V	
C363	1-164-159-11	CERAMIC	0.1uF	50V	(＊1, 2)
C364	1-161-494-00	CERAMIC	0.022uF	25V	(＊1, 2)
C371	1-162-198-31	CERAMIC	8.2PF	10% 50V	(A17, ＊4, 3)
C371	1-162-196-31	CERAMIC	5.6PF	10% 50V	(＊1, 2)
C373	1-162-288-31	CERAMIC	330PF	10% 50V	(＊4, 1)
C501	1-102-961-00	CERAMIC	27PF	5% 50V	

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description			Remarks
C507	1-161-379-00	CERAMIC 0.01uF	20%	25V	
C521	1-124-925-11	ELECT 2.2uF	20%	100V	
C522	1-124-463-00	ELECT 0.1uF	20%	50V	
C523	1-161-379-00	CERAMIC 0.01uF	20%	25V	
C524	1-161-379-00	CERAMIC 0.01uF	20%	25V	
C525	1-124-477-11	ELECT 47uF	20%	25V	
C531	1-136-173-00	FILM 0.47uF	5%	50V (*1, 2)	
C532	1-161-494-00	CERAMIC 0.022uF		25V (*1, 2)	
C533	1-124-463-00	ELECT 0.1uF	20%	50V (*1, 2)	
C1001	1-124-925-11	ELECT 2.2uF	20%	100V	
C1002	1-162-282-31	CERAMIC 100PF	10%	50V	
C1003	1-162-282-31	CERAMIC 100PF	10%	50V	
C1004	1-124-477-11	ELECT 47uF	20%	25V	
C1005	1-161-377-00	CERAMIC 0.0047uF	20%	16V	
C1006	1-161-374-11	CERAMIC 0.0015uF	20%	50V	
C1007	1-124-464-11	ELECT 0.22uF	20%	50V	
C1008	1-124-477-11	ELECT 47uF	20%	25V	
C1010	1-124-477-11	ELECT 47uF	20%	25V	
C1012	1-124-925-11	ELECT 2.2uF	20%	100V	
C1013	1-162-290-31	CERAMIC 470PF	10%	50V	
C1014	1-161-494-00	CERAMIC 0.022uF		25V	
C1025	1-162-286-31	CERAMIC 220PF	10%	50V	
C1026	1-162-286-31	CERAMIC 220PF	10%	50V	
C1051	1-124-925-11	ELECT 2.2uF	20%	100V	
C1052	1-162-282-31	CERAMIC 100PF	10%	50V	
C1053	1-162-282-31	CERAMIC 100PF	10%	50V	
C1054	1-124-477-11	ELECT 47uF	20%	25V	
C1055	1-161-377-00	CERAMIC 0.0047uF	20%	16V	
C1056	1-161-374-11	CERAMIC 0.0015uF	20%	50V	
C1057	1-124-464-11	ELECT 0.22uF	20%	50V	
C1058	1-124-477-11	ELECT 47uF	20%	25V	
C1060	1-124-477-11	ELECT 47uF	20%	25V	
C1062	1-124-925-11	ELECT 2.2uF	20%	100V	
C1063	1-162-290-31	CERAMIC 470PF	10%	50V	
C1064	1-161-494-00	CERAMIC 0.022uF		25V	
C1075	1-162-286-31	CERAMIC 220PF	10%	50V	
C1076	1-162-286-31	CERAMIC 220PF	10%	50V	
C1212	1-124-916-11	ELECT 22uF	20%	63V	
C1213	1-124-916-11	ELECT 22uF	20%	63V	
C1221	1-126-101-11	ELECT 100uF	20%	16V	
C1222	1-126-176-11	ELECT 220uF	20%	10V	
C1223	1-126-176-11	ELECT 220uF	20%	10V	
C1245	1-101-006-00	CERAMIC 0.047uF		50V (*3)	
C1246	1-101-006-00	CERAMIC 0.047uF		50V (*3)	
C1247	1-101-006-00	CERAMIC 0.047uF		50V (*3)	
C1248	1-101-006-00	CERAMIC 0.047uF		50V (*3)	
C1249	1-161-494-00	CERAMIC 0.022uF		25V (*3)	
C1250	1-161-494-00	CERAMIC 0.022uF		25V (*3)	
C1262	1-124-916-11	ELECT 22uF	20%	63V	
C1263	1-124-916-11	ELECT 22uF	20%	63V	

Ref. No.	Part No.	Description			Remarks
C1302	1-102-394-11	CERAMIC 0.01uF		250V	
C1304	1-126-224-11	ELECT 4700uF	20%	42V (A17*1, 2, 3)	
C1304	1-126-413-11	ELECT 3300uF	20%	35V (*4)	
C1305	1-126-224-11	ELECT 4700uF	20%	42V (A17*1, 2, 3)	
C1305	1-126-413-11	ELECT 3300uF	20%	35V (*4)	
C1306	1-124-477-11	ELECT 47uF	20%	25V	
C1308	1-126-101-11	ELECT 100uF	20%	16V	
C1309	1-126-101-11	ELECT 100uF	20%	16V	
C1312	1-124-563-11	ELECT 2200uF	20%	25V	
C1313	1-124-563-11	ELECT 2200uF	20%	25V	
C1319	1-124-463-00	ELECT 0.1uF	20%	50V	
C1320	1-124-907-11	ELECT 10uF	20%	50V	
C1321	1-161-379-00	CERAMIC 0.01uF	20%	25V	
C1322	1-161-379-00	CERAMIC 0.01uF	20%	25V	
C1324	1-124-907-11	ELECT 10uF	20%	50V	
C1326	1-124-907-11	ELECT 10uF	20%	50V	
C1294	1-161-494-00	CERAMIC 0.022uF		25V (*3)	
C1330	1-126-101-11	ELECT 100uF	20%	16V	
C1331	1-102-394-11	CERAMIC 0.01uF		250V	
C1335	1-124-907-11	ELECT 10uF	20%	50V	(D159:AEP, *2)
C1336	1-126-101-11	ELECT 100uF	20%	16V	(A17, D159:AEP, *2)
C1341	1-124-907-11	ELECT 10uF	20%	50V	
C1346	1-124-925-11	ELECT 2.2uF	20%	100V	
C1351	1-124-122-11	ELECT 100uF	20%	50V	
C1352	1-126-105-11	ELECT 1000uF	20%	35V	
C1353	1-136-165-00	FILM 0.1uF	5%	50V	
C1354	1-136-165-00	FILM 0.1uF	5%	50V	
C1360	1-161-494-00	CERAMIC 0.022uF		25V	
C1361	1-124-122-11	ELECT 100uF	20%	50V	

< FILTER >

CF301	1-577-070-81	FILTER, CERAMIC (A17*1, 2, 4)
CF301	1-567-389-11	FILTER, CERAMIC (*3)
CF303	1-577-070-81	FILTER, CERAMIC (A17*1, 2, 4)
CF303	1-567-389-11	FILTER, CERAMIC (*3)
CF304	1-577-075-11	OSCILLATOR, CERAMIC

< CONNECTOR >

* CN212	1-564-506-11	PLUG, CONNECTOR 3P
CN302	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P
* CN501	1-568-830-11	SOCKET, CONNECTOR 11P
* CN1001	1-580-912-11	JACK, PIN 4P
* CN1006	1-568-955-11	PIN, CONNECTOR 6P (17)
CN1201	1-537-494-11	TERMINAL BOARD (SPEAKER) (17, *1, 2, 4)
CN1201	1-537-481-11	TERMINAL BOARD (SPEAKER) (3)
* CN1203	1-564-508-11	PLUG, CONNECTOR 5P
* CN1204	1-564-510-11	PLUG, CONNECTOR 7P
CN1205	1-506-468-11	PIN, CONNECTOR 3P

MAIN | **SURROUND**

Ref. No.	Part No.	Description	Remarks
CN1201	1-537-494-11	TERMINAL BOARD (SPEAKER)	(17, *1, 2, 4)
CN1201	1-537-481-11	TERMINAL BOARD (SPEAKER)	(3)
* CN1203	1-564-508-11	PLUG, CONNECTOR 5P	
* CN1204	1-564-510-11	PLUG, CONNECTOR 7P	
CN1205	1-506-468-11	PIN, CONNECTOR 3P	
CN1206	1-568-802-11	SOCKET, CONNECTOR 19P	
* CN1241	1-565-291-11	SOCKET, CONNECTOR 13P	(SYSTEM CONTROL)
CN1243	1-695-094-11	SOCKET, CONNECTOR 11P	
* CN1301	1-566-210-11	PIN, CONNECTOR 3P	(POWER SOURCE) (A17, D159:AEP, *2)
CN1302	1-506-469-11	PIN, CONNECTOR 4P	
* TP1	1-560-060-00	PIN, CONNECTOR 2P	
		< DIODE >	
D351	8-719-987-63	DIODE 1N4148M	(*1, 2)
D1202	8-719-987-63	DIODE 1N4148M	
D1203	8-719-987-63	DIODE 1N4148M	
D1204	8-719-987-63	DIODE 1N4148M	
D1205	8-719-933-48	DIODE HZS7B3L	
D1302	8-719-312-09	DIODE RBA-402	
D1303	8-719-200-82	DIODE 11ES2	
D1304	8-719-200-82	DIODE 11ES2	
D1305	8-719-200-82	DIODE 11ES2	
D1306	8-719-200-82	DIODE 11ES2	
D1316	8-719-200-82	DIODE 11ES2	
D1318	8-719-200-82	DIODE 11ES2	
D1319	8-719-200-82	DIODE 11ES2	
D1321	8-719-987-63	DIODE 1N4148M	
D1323	8-719-987-63	DIODE 1N4148M	
D1324	8-719-987-63	DIODE 1N4148M	
D1341	8-719-001-76	DIODE UZL-12M3	
D1368	8-719-200-82	DIODE 11ES2	
D1369	8-719-200-82	DIODE 11ES2	
		< FRONTEND >	
FE301	1-693-090-21	FRONT END (FM) (2 GANG)	(A17, *1)
FE301	1-465-006-11	FRONT END (FM) (2 GANG)	(*2, 4)
FE301	1-463-857-21	FRONT END (FM)	(*3)
FE351	1-236-463-11	ENCAPSULATED COMPONENT	(*1, 2)
FE352	1-239-260-11	ENCAPSULATED COMPONENT	(A17, *3, 4)
FE352	1-239-261-12	ENCAPSULATED COMPONENT	(*1, 2)
		< IC >	
IC301	8-759-821-45	IC LA1851N	
IC501	8-759-820-91	IC LC7218	
IC601	8-759-096-99	IC uPD75212ACW-A47	
IC1001	8-759-634-51	IC M5218AP	
IC1002	8-759-000-48	IC MC14052BCP	
IC1003	8-759-634-51	IC M5218AP	
IC1202	8-759-111-68	IC uPC1237HA	
IC1302	8-759-231-53	IC M5F7805	
IC1303	8-759-071-48	IC M5F7807L	
IC1304	8-759-604-95	IC M5F79M07	
IC1305	8-759-820-13	IC L78MR06	
IC1306	8-759-231-58	IC M5F7812L	(A17, D159:AEP, *2)
		< IFT >	
IFT301	1-404-713-11	TRANSFORMER, IF	
		< JACK >	
J1202	1-569-130-11	JACK, PIN 2P	(SURROUND SPEAKER) (17, *1, 2, 3)
		< COIL >	
L301	1-410-686-11	INDUCTOR 1mH	(A17, *4)
L301	1-407-500-00	INDUCTOR 4.7mH	(*1, 2, 3)
L351	1-410-525-11	INDUCTOR 220uH	(*1, 2)
L1301	1-408-117-00	INDUCTOR 10uH	(D159:G)
L1302	1-408-117-00	INDUCTOR 10uH	(D159:G)
		< FILTER >	
LPF301	1-235-164-00	FILTER, LOW PASS	
LPF302	1-235-164-00	FILTER, LOW PASS	
		< TRANSISTOR >	
Q301	8-729-230-99	TRANSISTOR 2SC2669-OY	(*3)
Q302	8-729-230-99	TRANSISTOR 2SC2669-OY	(*3)
Q303	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q304	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q305	8-729-900-80	TRANSISTOR DTC114ES	
Q306	8-729-900-61	TRANSISTOR DTA114ES	
Q307	8-729-900-80	TRANSISTOR DTC114ES	
Q308	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q309	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q351	8-729-900-80	TRANSISTOR DTC114ES	(*1, 2)
Q352	8-729-119-78	TRANSISTOR 2SC2785-HFE	(*1, 2)
Q353	8-729-119-76	TRANSISTOR 2SA1175-HFE	(*1, 2)
Q354	8-729-900-80	TRANSISTOR DTC114ES	(*1, 2)
Q355	8-729-900-80	TRANSISTOR DTC114ES	(*1, 2)
Q356	8-729-900-80	TRANSISTOR DTC114ES	(*1, 2)
Q501	8-729-900-80	TRANSISTOR DTC114ES	
Q502	8-729-900-61	TRANSISTOR DTA114ES	
Q521	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q522	8-729-201-84	TRANSISTOR 2SC3112-B	(A17, *4)
Q522	8-729-141-26	TRANSISTOR 2SC3622A-LK	(*1, 2, 3)
Q531	8-729-202-67	TRANSISTOR 2SK246-GR3	(*1, 2)
Q532	8-729-141-26	TRANSISTOR 2SC3622A-LK	(*1, 2)
Q1204	8-729-900-63	TRANSISTOR DTA124ES	
Q1302	8-729-209-15	TRANSISTOR 2SD2012	

MAIN | **SURROUND**

Ref. No.	Part No.	Description				Remarks
R304	1-249-432-11	CARBON	18K	5%	1/4W	(*3)
R305	1-249-411-11	CARBON	330	5%	1/4W	(*3)
R306	1-249-434-11	CARBON	27K	5%	1/4W	(*3)
R307	1-249-414-11	CARBON	560	5%	1/4W	F (*3)
R308	1-249-411-11	CARBON	330	5%	1/4W	
R309	1-249-432-11	CARBON	18K	5%	1/4W	
R310	1-249-411-11	CARBON	330	5%	1/4W	
R311	1-249-434-11	CARBON	27K	5%	1/4W	
R312	1-249-414-11	CARBON	560	5%	1/4W	F (A17, *1, 2, 4)
R312	1-249-416-11	CARBON	820	5%	1/4W	F (*3)
R313	1-249-405-11	CARBON	100	5%	1/4W	F
R314	1-249-437-11	CARBON	47K	5%	1/4W	(*3)
R315	1-249-404-00	CARBON	82	5%	1/4W	
R316	1-249-429-11	CARBON	10K	5%	1/4W	
R317	1-249-417-11	CARBON	1K	5%	1/4W	F
R318	1-249-435-11	CARBON	33K	5%	1/4W	
R319	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R320	1-249-432-11	CARBON	18K	5%	1/4W	
R321	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R322	1-249-429-11	CARBON	10K	5%	1/4W	
R323	1-249-418-11	CARBON	1.2K	5%	1/4W	F (A17*1, 2, 4)
R323	1-249-423-11	CARBON	3.3K	5%	1/4W	F (*3)
R324	1-249-429-11	CARBON	10K	5%	1/4W	
R325	1-249-429-11	CARBON	10K	5%	1/4W	
R326	1-249-409-11	CARBON	220	5%	1/4W	F
R327	1-249-437-11	CARBON	47K	5%	1/4W	
R328	1-249-437-11	CARBON	47K	5%	1/4W	
R331	1-247-899-11	CARBON	680K	5%	1/4W	
R332	1-247-899-11	CARBON	680K	5%	1/4W	
R333	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R334	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R335	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R336	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R337	1-249-426-11	CARBON	5.6K	5%	1/4W	
R338	1-249-426-11	CARBON	5.6K	5%	1/4W	
R351	1-249-433-11	CARBON	22K	5%	1/4W	(*1, 2)
R352	1-249-437-11	CARBON	47K	5%	1/4W	(*1, 2)
R353	1-247-903-00	CARBON	1M	5%	1/4W	(*1, 2)
R354	1-249-441-11	CARBON	100K	5%	1/4W	(*1, 2)
R355	1-249-433-11	CARBON	22K	5%	1/4W	(*1, 2)
R356	1-249-421-11	CARBON	2.2K	5%	1/4W	F (*1, 2)
R361	1-249-437-11	CARBON	47K	5%	1/4W	
R362	1-249-437-11	CARBON	47K	5%	1/4W	
R363	1-249-425-11	CARBON	4.7K	5%	1/4W	F (*1, 2)
R364	1-249-425-11	CARBON	4.7K	5%	1/4W	F (*1, 2)
R365	1-249-429-11	CARBON	10K	5%	1/4W	(*1, 2, 3)

Ref. No.	Part No.	Description				Remarks
R366	1-249-413-11	CARBON	470	5%	1/4W	F (*1, 2)
R367	1-249-434-11	CARBON	27K	5%	1/4W	(*1, 2)
R368	1-249-433-11	CARBON	22K	5%	1/4W	(*1, 2)
R370	1-249-423-11	CARBON	3.3K	5%	1/4W	F (*3)
R501	1-249-417-11	CARBON	1K	5%	1/4W	F
R502	1-249-417-11	CARBON	1K	5%	1/4W	F
R503	1-249-417-11	CARBON	1K	5%	1/4W	F
R504	1-249-417-11	CARBON	1K	5%	1/4W	F
R505	1-249-429-11	CARBON	10K	5%	1/4W	
R506	1-249-417-11	CARBON	1K	5%	1/4W	F
R510	1-249-401-11	CARBON	47	5%	1/4W	F
R511	1-249-429-11	CARBON	10K	5%	1/4W	
R512	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R513	1-249-417-11	CARBON	1K	5%	1/4W	F
R514	1-249-429-11	CARBON	10K	5%	1/4W	
R515	1-249-417-11	CARBON	1K	5%	1/4W	F
R521	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R522	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R523	1-249-414-11	CARBON	560	5%	1/4W	F
R524	1-249-417-11	CARBON	1K	5%	1/4W	F
R525	1-249-410-11	CARBON	270	5%	1/4W	F
R526	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R527	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R528	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R529	1-249-405-11	CARBON	100	5%	1/4W	F
R530	1-249-405-11	CARBON	100	5%	1/4W	F
R531	1-249-423-11	CARBON	3.3K	5%	1/4W	F (*1, 2)
R532	1-249-433-11	CARBON	22K	5%	1/4W	(*1, 2)
R533	1-249-414-11	CARBON	560	5%	1/4W	F (*1, 2)
R534	1-249-417-11	CARBON	1K	5%	1/4W	F (*1, 2)
R535	1-249-410-11	CARBON	270	5%	1/4W	F (*1, 2)
R536	1-249-421-11	CARBON	2.2K	5%	1/4W	F (*1, 2)
R537	1-249-425-11	CARBON	4.7K	5%	1/4W	F (*1, 2)
R538	1-249-405-11	CARBON	100	5%	1/4W	F (*1, 2)
R631	1-249-441-11	CARBON	100K	5%	1/4W	
R1001	1-249-417-11	CARBON	1K	5%	1/4W	F
R1002	1-249-441-11	CARBON	100K	5%	1/4W	
R1003	1-249-416-11	CARBON	820	5%	1/4W	F
R1004	1-247-897-11	CARBON	560K	5%	1/4W	
R1005	1-249-437-11	CARBON	47K	5%	1/4W	
R1006	1-249-409-11	CARBON	220	5%	1/4W	F
R1007	1-249-441-11	CARBON	100K	5%	1/4W	
R1008	1-249-409-11	CARBON	220	5%	1/4W	F
R1010	1-249-417-11	CARBON	1K	5%	1/4W	F (A17, *1, 2, 4)
R1012	1-249-417-11	CARBON	1K	5%	1/4W	F
R1013	1-249-441-11	CARBON	100K	5%	1/4W	(A17, *1, 2, 4)

Ref. No.	Part No.	Description				Remarks
R1012	1-249-417-11	CARBON	1K	5%	1/4W	F
R1013	1-249-441-11	CARBON	100K	5%	1/4W	(A17, *1, 2, 4)
R1014	1-249-437-11	CARBON	47K	5%	1/4W	
R1015	1-249-437-11	CARBON	47K	5%	1/4W	
R1021	1-249-437-11	CARBON	47K	5%	1/4W	
R1022	1-249-432-11	CARBON	18K	5%	1/4W	(17)
R1023	1-249-437-11	CARBON	47K	5%	1/4W	
R1024	1-249-417-11	CARBON	1K	5%	1/4W	F
R1029	1-249-433-11	CARBON	22K	5%	1/4W	
R1035	1-249-415-11	CARBON	680	5%	1/4W	F
R1037	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1051	1-249-417-11	CARBON	1K	5%	1/4W	F
R1052	1-249-441-11	CARBON	100K	5%	1/4W	
R1053	1-249-416-11	CARBON	820	5%	1/4W	F
R1054	1-247-897-11	CARBON	560K	5%	1/4W	
R1055	1-249-437-11	CARBON	47K	5%	1/4W	
R1056	1-249-409-11	CARBON	220	5%	1/4W	F (*1, 2, 4)
R1058	1-249-409-11	CARBON	220	5%	1/4W	F (*1, 2, 4)
R1065	1-249-415-11	CARBON	680	5%	1/4W	F
R1071	1-249-437-11	CARBON	47K	5%	1/4W	
R1072	1-249-432-11	CARBON	18K	5%	1/4W	(A17)
R1073	1-249-437-11	CARBON	47K	5%	1/4W	
R1074	1-249-417-11	CARBON	1K	5%	1/4W	F
R1222	1-249-415-11	CARBON	680	5%	1/4W	F
R1223	1-249-415-11	CARBON	680	5%	1/4W	F
R1226	1-215-890-11	METAL OXIDE	470	5%	2W	F (A17)
R1226	1-215-887-00	METAL OXIDE	150	5%	2W	F
R1233	1-249-432-11	CARBON	18K	5%	1/4W	
R1234	1-249-432-11	CARBON	18K	5%	1/4W	
R1235	1-249-437-11	CARBON	47K	5%	1/4W	
R1236	1-249-441-11	CARBON	100K	5%	1/4W	
R1237	1-249-429-11	CARBON	10K	5%	1/4W	
R1240	1-249-438-11	CARBON	56K	5%	1/4W	
R1241	1-249-385-11	CARBON	2.2	5%	1/6W	F (*3)
R1242	1-249-385-11	CARBON	2.2	5%	1/6W	F (*3)
R1243	1-249-385-11	CARBON	2.2	5%	1/6W	F (*3)
R1244	1-249-385-11	CARBON	2.2	5%	1/6W	F (*3)
R1272	1-249-415-11	CARBON	680	5%	1/4W	F
R1273	1-249-415-11	CARBON	680	5%	1/4W	F
R1290	1-249-437-11	CARBON	47K	5%	1/4W	
R1301	1-249-429-11	CARBON	10K	5%	1/4W	
R1302	1-249-429-11	CARBON	10K	5%	1/4W	
R1321	1-249-417-11	CARBON	1K	5%	1/4W	F
R1322	1-249-429-11	CARBON	10K	5%	1/4W	
R1345	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1346	1-249-425-11	CARBON	4.7K	5%	1/4W	F (AEP, *2)

Ref. No.	Part No.	Description	Remarks
		< VARIABLE RESISTOR >	
RV301	1-238-601-11	RES, ADJ, CARBON 22K	
RV302	1-238-601-11	RES, ADJ, CARBON 22K	
		< RELAY >	
RY1201	1-515-533-11	RELAY	
RY1201	1-515-920-11	RELAY (24V)	
		< TRANSFORMER >	
T301	1-404-807-11	TRANSFORMER, DISCRIMINATOR	
		< TERMINAL >	
* TM301	1-537-264-11	TERMINAL BOARD (A17, *2, 4)	
* TM301	1-537-288-11	TERMINAL BOARD, ANTENNA (PAL) (*1, 3)	
		< TRANSFORMER >	
T302	1-235-126-00	ENCAPSULATED COMPONENT (*3)	
		< VIBRATOR >	
XT501	1-577-126-21	VIBRATOR, CRYSTAL 7.2MHz	
XT501	1-579-383-11	VIBRATOR, CRYSTAL 7.2MHz	
**********			
*	A-4356-702-A	PANEL BOARD, COMPLETE (A17)	
		**********	
*	A-4356-667-A	PANEL BOARD, COMPLETE (*1)	
		**********	
*	A-4356-679-A	PANEL BOARD, COMPLETE (*2)	
		**********	
*	A-4356-711-A	PANEL BOARD, COMPLETE (*3)	
		**********	
*	A-4356-691-A	PANEL BOARD, COMPLETE (*4)	
		**********	
*	A-4365-503-A	PANEL BOARD, COMPLETE (D159:G)	
		**********	
*	1-646-477-11	H.P BOARD	
		*********	
*	1-646-478-11	POWER SUPPLY (B) BOARD	
		**********	
*	1-646-479-11	MIC BOARD (A17)	
		**********	
*	1-646-481-11	POWER SUPPLY BOARD	
		**********	
*	1-646-497-11	VR BOARD	
		********	
	1-533-217-31	HOLDER, FUSE	
*	1-535-141-00	BASE POST 22MM (10MM P*3CH) 4P (A17)	
*	4-942-301-01	HOLDER, FL TUBE	

Ref. No.	Part No.	Description			Remarks
		< CAPACITOR >			
C603	1-136-169-00	FILM	0. 22uF	5%	50V
C604	1-164-159-11	CERAMIC	0. 1uF		50V
C605	1-125-486-11	DOUBLE LAYERS	0. 22F		5. 5V
C606	1-164-159-11	CERAMIC	0. 1uF		50V
C607	1-124-907-11	ELECT	10uF	20%	50V
C608	1-161-379-00	CERAMIC	0. 01uF	20%	25V
C609	1-161-379-00	CERAMIC	0. 01uF	20%	25V
C610	1-162-286-31	CERAMIC	220PF	10%	50V
C650	1-124-907-11	ELECT	10uF	20%	50V
C1101	1-124-257-00	ELECT	2. 2uF	20%	50V
C1102	1-124-589-11	ELECT	47uF	20%	16V
C1103	1-162-282-31	CERAMIC	100PF	10%	50V
C1104	1-124-257-00	ELECT	2. 2uF	20%	50V
C1105	1-124-464-11	ELECT	0. 22uF	20%	50V
C1106	1-136-161-00	FILM	0. 047uF	5%	50V
C1107	1-136-155-00	FILM	0. 015uF	5%	50V
C1108	1-136-155-00	FILM	0. 015uF	5%	50V
C1109	1-137-437-11	FILM	0. 0056uF	5%	50V
C1110	1-161-327-00	CERAMIC	0. 0033uF	20%	16V
C1111	1-136-155-00	FILM	0. 015uF	5%	50V
C1112	1-136-157-00	FILM	0. 022uF	5%	50V
C1113	1-136-153-00	FILM	0. 01uF	5%	50V
C1114	1-161-377-00	CERAMIC	0. 0047uF	20%	16V
C1115	1-124-257-00	ELECT	2. 2uF	20%	50V
C1120	1-161-379-00	CERAMIC	0. 01uF	20%	25V
C1121	1-161-379-00	CERAMIC	0. 01uF	20%	25V
C1123	1-162-286-31	CERAMIC	220PF	10%	50V
C1131	1-162-215-31	CERAMIC	47PF	5%	50V
C1132	1-162-215-31	CERAMIC	47PF	5%	50V
C1151	1-124-257-00	ELECT	2. 2uF	20%	50V
C1152	1-124-589-11	ELECT	47uF	20%	16V
C1153	1-162-282-31	CERAMIC	100PF	10%	50V
C1154	1-124-257-00	ELECT	2. 2uF	20%	50V
C1155	1-124-464-11	ELECT	0. 22uF	20%	50V
C1156	1-136-161-00	FILM	0. 047uF	5%	50V
C1157	1-136-155-00	FILM	0. 015uF	5%	50V
C1158	1-136-155-00	FILM	0. 015uF	5%	50V
C1159	1-137-437-11	FILM	0. 0056uF	5%	50V
C1160	1-161-327-00	CERAMIC	0. 0033uF	20%	16V
C1161	1-136-155-00	FILM	0. 015uF	5%	50V
C1162	1-136-157-00	FILM	0. 022uF	5%	50V
C1163	1-136-153-00	FILM	0. 01uF	5%	50V
C1164	1-161-377-00	CERAMIC	0. 0047uF	20%	16V
C1165	1-124-257-00	ELECT	2. 2uF	20%	50V
C1173	1-162-286-31	CERAMIC	220PF	10%	50V

Ref. No.	Part No.	Description			Remarks
C1181	1-162-215-31	CERAMIC	47PF	5%	50V
C1182	1-162-215-31	CERAMIC	47PF	5%	50V
C1198	1-161-379-00	CERAMIC	0. 01uF	20%	25V
C1237	1-162-282-31	CERAMIC	100PF	10%	50V (*3)
C1238	1-162-282-31	CERAMIC	100PF	10%	50V (*3)
C1301	1-161-744-00	CERAMIC	0. 01uF		400V
C1314	1-124-122-11	ELECT	100uF	20%	50V
C1315	1-124-927-11	ELECT	4. 7uF	20%	100V
C1316	1-124-910-11	ELECT	47uF	20%	50V
C1348	1-164-159-11	CERAMIC	0. 1uF		50V (*1, 3, 4)
C1362	1-124-916-11	ELECT	22uF	20%	63V
C1601	1-124-925-11	ELECT	2. 2uF	20%	100V (A17)
C1602	1-124-463-00	ELECT	0. 1uF	20%	50V (A17)
C1603	1-124-925-11	ELECT	2. 2uF	20%	100V (A17)
C1604	1-162-294-31	CERAMIC	0. 001uF	10%	50V (A17)
C1605	1-162-215-31	CERAMIC	47PF	5%	50V (A17)
C1606	1-162-282-31	CERAMIC	100PF	10%	50V (A17)
C1607	1-162-215-31	CERAMIC	47PF	5%	50V (A17)
C1608	1-124-589-11	ELECT	47uF	20%	16V (A17)
C1609	1-124-589-11	ELECT	47uF	20%	16V (A17)
C1610	1-162-282-31	CERAMIC	100PF	10%	50V (A17)
		< CONNECTOR >			
* CN601	1-568-830-11	SOCKET, CONNECTOR 11P			
CN1101	1-568-802-11	SOCKET, CONNECTOR 19P			
* CN1301	1-564-321-00	PIN, CONNECTOR 2P			
* CN1350	1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P			
		< DIODE >			
D601	8-719-987-63	DIODE	1N4148M		
D602	8-719-010-26	DIODE	UZ-3. 9BSB		
D603	8-719-987-63	DIODE	1N4148M		
D604	8-719-987-63	DIODE	1N4148M		
D605	8-719-987-63	DIODE	1N4148M		
D606	8-719-933-48	DIODE	HZS7B3L		
D611	8-719-987-63	DIODE	1N4148M		
D612	8-719-987-63	DIODE	1N4148M		
D613	8-719-987-63	DIODE	1N4148M		
D614	8-719-987-63	DIODE	1N4148M		
D615	8-719-987-63	DIODE	1N4148M		
D616	8-719-987-63	DIODE	1N4148M		
D622	8-719-987-63	DIODE	1N4148M (D159:IT, *4)		
D623	8-719-987-63	DIODE	1N4148M (A17, *4)		
D625	8-719-987-63	DIODE	1N4148M		

Ref. No.	Part No.	Description	Remarks
D641	8-719-200-82	DIODE 11ES2	
D1130	8-719-301-37	LED SEL2210S-CD	
D1131	8-719-301-37	LED SEL2210S-CD	
D1132	8-719-301-37	LED SEL2210S-CD	
D1133	8-719-301-37	LED SEL2210S-CD	
D1134	8-719-301-37	LED SEL2210S-CD	
D1145	8-719-313-69	DIODE SEL3210S-CD	
D1151	8-719-987-63	DIODE 1N4148M	
D1152	8-719-987-63	DIODE 1N4148M	
D1153	8-719-987-63	DIODE 1N4148M	
D1154	8-719-987-63	DIODE 1N4148M	
D1307	8-719-002-60	DIODE UZL-33L	
D1309	8-719-014-66	DIODE UZP-5.6B	
D1311	8-719-200-82	DIODE 11ES2	
D1370	8-719-200-82	DIODE 11ES2	
		< FLUORESCENT >	
FL601	1-519-732-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC602	8-749-922-36	IC GP1U50XB	
IC1101	8-759-634-51	IC M5218AP	
IC1102	8-759-634-51	IC M5218AP	
IC1103	8-759-820-62	IC LB1639	
IC1104	8-759-916-12	IC TC74HC00P	
IC1601	8-759-634-51	IC M5218AP (A17)	
		< JACK >	
J601	1-691-002-11	JACK, LARGE TYPE (HEADPHONES) (A17)	
J1201	1-691-003-11	JACK, LARGE TYPE (MIC)	
		< COIL >	
L601	1-410-521-11	INDUCTOR 100uH	
		< TRANSISTOR >	
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q602	8-729-900-80	TRANSISTOR DTC114ES	
Q603	8-729-900-80	TRANSISTOR DTC114ES	
Q1101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1102	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1121	8-729-900-36	TRANSISTOR DTC124ES	
Q1122	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1136	8-729-900-36	TRANSISTOR DTC124ES	
Q1138	8-729-900-36	TRANSISTOR DTC124ES	
Q1141	8-729-900-63	TRANSISTOR DTA124ES	
Q1143	8-729-900-80	TRANSISTOR DTC114ES	
Q1144	8-729-900-80	TRANSISTOR DTC114ES	
Q1145	8-729-900-61	TRANSISTOR DTA114ES	
Q1151	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1152	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1301	8-729-141-83	TRANSISTOR 2SA473	
		< RESISTOR >	
R601	1-249-429-11	CARBON 10K 5% 1/4W	
R602	1-249-429-11	CARBON 10K 5% 1/4W	
R603	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R605	1-249-433-11	CARBON 22K 5% 1/4W	
R606	1-249-433-11	CARBON 22K 5% 1/4W	
R607	1-249-439-11	CARBON 68K 5% 1/4W	
R608	1-249-417-11	CARBON 1K 5% 1/4W	F
R609	1-249-405-11	CARBON 100 5% 1/4W	F
R610	1-249-429-11	CARBON 10K 5% 1/4W	
R611	1-249-437-11	CARBON 47K 5% 1/4W	
R612	1-249-417-11	CARBON 1K 5% 1/4W	F
R613	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R614	1-249-393-11	CARBON 10 5% 1/4W	F
R621	1-249-433-11	CARBON 22K 5% 1/4W	
R622	1-249-433-11	CARBON 22K 5% 1/4W	
R623	1-249-433-11	CARBON 22K 5% 1/4W	
R624	1-249-433-11	CARBON 22K 5% 1/4W	
R642	1-249-409-11	CARBON 220 5% 1/4W	F
R643	1-249-417-11	CARBON 1K 5% 1/4W	F
R1101	1-249-441-11	CARBON 100K 5% 1/4W	
R1102	1-249-417-11	CARBON 1K 5% 1/4W	F
R1103	1-249-431-11	CARBON 15K 5% 1/4W	
R1104	1-249-441-11	CARBON 100K 5% 1/4W	
R1105	1-249-433-11	CARBON 22K 5% 1/4W	
R1106	1-249-424-11	CARBON 3.9K 5% 1/4W	F
R1107	1-249-441-11	CARBON 100K 5% 1/4W	
R1108	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R1109	1-249-412-11	CARBON 390 5% 1/4W	F
R1110	1-249-431-11	CARBON 15K 5% 1/4W	
R1111	1-249-439-11	CARBON 68K 5% 1/4W	
R1112	1-249-433-11	CARBON 22K 5% 1/4W	
R1113	1-249-431-11	CARBON 15K 5% 1/4W	
R1114	1-249-429-11	CARBON 10K 5% 1/4W	
R1115	1-249-429-11	CARBON 10K 5% 1/4W	
R1116	1-247-852-11	CARBON 7.5K 5% 1/4W	
R1117	1-247-852-11	CARBON 7.5K 5% 1/4W	
R1118	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R1119	1-249-425-11	CARBON 4.7K 5% 1/4W	F

Ref. No.	Part No.	Description				Remarks
R1120	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R1121	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R1122	1-247-887-00	CARBON	220K	5%	1/4W	
R1123	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1124	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1125	1-249-433-11	CARBON	22K	5%	1/4W	
R1130	1-249-412-11	CARBON	390	5%	1/4W	F
R1132	1-249-412-11	CARBON	390	5%	1/4W	F
R1133	1-249-412-11	CARBON	390	5%	1/4W	F
R1135	1-249-433-11	CARBON	22K	5%	1/4W	
R1143	1-249-433-11	CARBON	22K	5%	1/4W	
R1145	1-249-412-11	CARBON	390	5%	1/4W	F
R1149	1-249-429-11	CARBON	10K	5%	1/4W	
R1151	1-249-441-11	CARBON	100K	5%	1/4W	
R1152	1-249-417-11	CARBON	1K	5%	1/4W	F
R1154	1-249-441-11	CARBON	100K	5%	1/4W	
R1155	1-249-433-11	CARBON	22K	5%	1/4W	
R1156	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R1157	1-249-441-11	CARBON	100K	5%	1/4W	
R1158	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R1159	1-249-412-11	CARBON	390	5%	1/4W	F
R1160	1-249-431-11	CARBON	15K	5%	1/4W	
R1161	1-249-439-11	CARBON	68K	5%	1/4W	
R1162	1-249-433-11	CARBON	22K	5%	1/4W	
R1163	1-249-431-11	CARBON	15K	5%	1/4W	
R1164	1-249-429-11	CARBON	10K	5%	1/4W	
R1165	1-249-429-11	CARBON	10K	5%	1/4W	
R1166	1-247-852-11	CARBON	7.5K	5%	1/4W	
R1167	1-247-852-11	CARBON	7.5K	5%	1/4W	
R1168	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1169	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1170	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R1171	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R1172	1-247-887-00	CARBON	220K	5%	1/4W	
R1173	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1174	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1303	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1304	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1391	1-202-725-00	SOLID	3.3M	10%	1/2W	(*4)
R1601	1-249-429-11	CARBON	10K	5%	1/4W	(A17)
R1602	1-249-417-11	CARBON	1K	5%	1/4W	F (A17)
R1603	1-249-412-11	CARBON	390	5%	1/4W	F (A17)
R1604	1-249-434-11	CARBON	27K	5%	1/4W	(A17)
R1605	1-249-433-11	CARBON	22K	5%	1/4W	(A17)
R1606	1-249-437-11	CARBON	47K	5%	1/4W	(A17)

Ref. No.	Part No.	Description	Remarks
		< VARIABLE RESISTOR >	
RV1101	1-223-251-11	RES, VAR, CARBON 100K/100K (SURROUND)	
RV1102	1-223-251-11	RES, VAR, CARBON 100K/100K (DBFB)	
RV1103	1-223-289-11	RES, VAR, SLIDE 100K (100Hz)	
RV1104	1-223-289-11	RES, VAR, SLIDE 100K (330Hz)	
RV1105	1-223-289-11	RES, VAR, SLIDE 100K (1KHz)	
RV1106	1-223-289-11	RES, VAR, SLIDE 100K (3.3KHz)	
RV1107	1-223-289-11	RES, VAR, SLIDE 100K (10KHz)	
RV1108	1-223-253-11	RES, VAR, CARBON 100K/100K (BALANCE)	
RV1109	1-223-291-11	RES, VAR, CARBON 100K/100K (VOLUME)	
RV1153	1-223-289-11	RES, VAR, SLIDE 100K (100Hz)	
RV1154	1-223-289-11	RES, VAR, SLIDE 100K (330Hz)	
RV1155	1-223-289-11	RES, VAR, SLIDE 100K (1KHz)	
RV1156	1-223-289-11	RES, VAR, SLIDE 100K (3.3KHz)	
RV1157	1-223-289-11	RES, VAR, SLIDE 100K (10KHz)	
		< SWITCH >	
S601	1-554-303-21	SWITCH, TACTILE (1)	
S602	1-554-303-21	SWITCH, TACTILE (2)	
S603	1-554-303-21	SWITCH, TACTILE (3)	
S604	1-554-303-21	SWITCH, TACTILE (4)	
S605	1-554-303-21	SWITCH, TACTILE (5)	
S606	1-554-303-21	SWITCH, TACTILE (6)	
S607	1-554-303-21	SWITCH, TACTILE (7)	
S608	1-554-303-21	SWITCH, TACTILE (8)	
S609	1-554-303-21	SWITCH, TACTILE (9)	
S610	1-554-303-21	SWITCH, TACTILE (0)	
S611	1-554-303-21	SWITCH, TACTILE (+)	
S612	1-554-303-21	SWITCH, TACTILE (-)	
S613	1-554-303-21	SWITCH, TACTILE (SHIFT)	
S614	1-554-303-21	SWITCH, TACTILE (BAND SELECT)	
S615	1-554-303-21	SWITCH, TACTILE (ST MUTE)	
S616	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S619	1-554-303-21	SWITCH, TACTILE (VIDEO)	
S620	1-554-303-21	SWITCH, TACTILE (TAPE)	
S621	1-554-303-21	SWITCH, TACTILE (CD)	
S622	1-554-303-21	SWITCH, TACTILE (TUNER)	
S623	1-554-303-21	SWITCH, TACTILE (PHONO)	
S1102	1-571-305-11	SWITCH, PUSH (EQUALIZER)(1 KEY)	
		< VIBRATOR >	
X601	1-567-775-11	VIBRATOR, CERAMIC (4.19 MHz)	

****

POWER AMPLIFIER

Ref. No.	Part No.	Description			Remarks
*	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE (A17)			
		**********			
*	A-4356-677-A	POWER AMPLIFIER BOARD, COMPLETE (*1)			
		**********			
*	A-4356-689-A	POWER AMPLIFIER BOARD, COMPLETE (*2)			
		**********			
*	A-4356-718-A	POWER AMPLIFIER BOARD, COMPLETE (*3)			
		**********			
*	A-4356-698-A	POWER AMPLIFIER BOARD, COMPLETE (*4)			
		**********			
		< CAPACITOR >			
C1201	1-124-257-00	ELECT	2.2uF	20% 50V	
C1202	1-162-290-31	CERAMIC	470PF	10% 50V	(*1, 2, 3, 4)
C1203	1-162-292-31	CERAMIC	680PF	10% 50V	(*3)
C1204	1-124-477-11	ELECT	47uF	20% 25V	
C1205	1-124-910-11	ELECT	47uF	20% 50V	
C1206	1-124-122-11	ELECT	100uF	20% 50V	
C1207	1-136-165-00	FILM	0.1uF	5% 50V	
C1208	1-124-916-11	ELECT	22uF	20% 63V	
C1209	1-164-159-11	CERAMIC	0.1uF	50V	
C1210	1-136-163-00	FILM	0.068uF	5% 50V	
C1211	1-136-163-00	FILM	0.068uF	5% 50V	
C1220	1-124-910-11	ELECT	47uF	20% 50V	
C1230	1-161-494-00	CERAMIC	0.022uF	25V	(*3)
C1231	1-161-494-00	CERAMIC	0.022uF	25V	(*3)
C1232	1-161-494-00	CERAMIC	0.022uF	25V	(*3)
C1233	1-161-494-00	CERAMIC	0.022uF	25V	(*3)
C1251	1-124-257-00	ELECT	2.2uF	20% 50V	(*1, 2, 4)
C1252	1-162-290-31	CERAMIC	470PF	10% 50V	(*1, 2, 3, 4)
C1253	1-162-292-31	CERAMIC	680PF	10% 50V	(*3)
C1254	1-124-477-11	ELECT	47uF	20% 25V	
C1255	1-124-910-11	ELECT	47uF	20% 50V	
C1256	1-124-122-11	ELECT	100uF	20% 50V	
C1257	1-136-165-00	FILM	0.1uF	5% 50V	
C1260	1-136-163-00	FILM	0.068uF	5% 50V	
C1261	1-136-163-00	FILM	0.068uF	5% 50V	
C1280	1-161-494-00	CERAMIC	0.022uF	25V	(*3)
		< CONNECTOR >			
* CN1201	1-564-518-11	PLUG, CONNECTOR 3P			
* CN1202	1-564-522-11	PLUG, CONNECTOR 7P			
		< DIODE >			
D1201	8-719-987-63	DIODE	1N4148M		
D1251	8-719-987-63	DIODE	1N4148M		

Ref. No.	Part No.	Description			Remarks
		< IC >			
IC1201	8-749-900-96	IC	STK-4142MK2	(A17, *4)	
IC1201	8-749-920-13	IC	STK-4132MK2	(*1, 2, 3)	
		< COIL >			
L1221	1-420-872-00	COIL, AIR CORE			
L1251	1-420-872-00	COIL, AIR CORE			
		< TRANSISTOR >			
Q1201	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q1202	8-729-900-80	TRANSISTOR	DTC114ES		
Q1203	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q1251	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
		< RESISTOR >			
R1201	1-249-417-11	CARBON	1K	5% 1/4W	F
R1202	1-249-438-11	CARBON	56K	5% 1/4W	
R1203	1-249-417-11	CARBON	1K	5% 1/4W	F
R1204	1-249-438-11	CARBON	56K	5% 1/4W	
R1205	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R1206	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R1207	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R1208	1-249-425-11	CARBON	4.7K	5% 1/4W	F
⚠R1209	1-212-881-11	FUSIBLE	100	5% 1/4W	F
⚠R1210	1-217-151-00	RES, METAL PLATE	0.22		
R1211	1-249-417-11	CARBON	1K	5% 1/4W	F
R1212	1-249-431-11	CARBON	15K	5% 1/4W	
R1213	1-249-441-11	CARBON	100K	5% 1/4W	
R1214	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R1215	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R1216	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R1217	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R1218	1-249-397-11	CARBON	22	5% 1/4W	F
R1219	1-249-397-11	CARBON	22	5% 1/4W	F
R1220	1-249-397-11	CARBON	22	5% 1/4W	F
R1221	1-249-397-11	CARBON	22	5% 1/4W	F
R1227	1-249-429-11	CARBON	10K	5% 1/4W	
R1228	1-247-881-00	CARBON	120K	5% 1/4W	
R1229	1-249-439-11	CARBON	68K	5% 1/4W	
R1230	1-249-439-11	CARBON	68K	5% 1/4W	
R1231	1-249-417-11	CARBON	1K	5% 1/4W	F
R1232	1-249-428-11	CARBON	8.2K	5% 1/4W	F
R1238	1-249-433-11	CARBON	22K	5% 1/4W	
R1239	1-249-426-11	CARBON	5.6K	5% 1/4W	
R1241	1-249-383-81	CARBON	1.5	5% 1/4W	F (A17, *1, 2)

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks
R1251	1-249-417-11	CARBON 1K 5% 1/4W F	
R1252	1-249-438-11	CARBON 56K 5% 1/4W	
R1253	1-249-417-11	CARBON 1K 5% 1/4W F	
R1254	1-249-438-11	CARBON 56K 5% 1/4W	
R1255	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1256	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1257	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1258	1-249-425-11	CARBON 4.7K 5% 1/4W F	
⚠R1259	1-212-881-11	FUSIBLE 100 5% 1/4W F	
⚠R1260	1-217-151-00	RES, METAL PLATE 0.22	
R1261	1-249-417-11	CARBON 1K 5% 1/4W F	
R1262	1-249-431-11	CARBON 15K 5% 1/4W	
R1263	1-249-441-11	CARBON 100K 5% 1/4W	
R1268	1-249-397-11	CARBON 22 5% 1/4W F	
R1269	1-249-397-11	CARBON 22 5% 1/4W F	
R1270	1-249-397-11	CARBON 22 5% 1/4W F	
R1271	1-249-397-11	CARBON 22 5% 1/4W F	

****

MISCELLANEOUS
****

18	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
19	1-590-576-11	WIRE, FLAT TYPE (11 CORE) (A17)	
19	1-590-576-21	WIRE, FLAT TYPE (11 CORE) (D159)	
⚠64	1-575-651-11	CORD, POWER (D159:AEP, AE2, IT, G)	
⚠64	1-575-653-11	CORD, POWER (A17:E, PX)	
⚠64	1-690-609-11	CORD, POWER (D159:US, CND)	
⚠64	1-696-570-21	CORD, POWER (D159:UK)	
⚠64	1-696-848-21	CORD, POWER (A17:AUS)	
⚠F1301	1-532-350-00	FUSE 4A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1301	1-576-108-11	FUSE 4A (D159:US, CND)	
⚠F1302	1-576-108-11	FUSE 4A (D159:US, CND)	
⚠F1302	1-532-350-00	FUSE 4A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1303	1-532-203-00	FUSE 2A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1303	1-576-104-11	FUSE (D159:US, CND)	
⚠F1304	1-532-203-00	FUSE 2A (A17/D159:AEP, AE2, UK, IT, G)	

Ref. No.	Part No.	Description	Remarks
⚠F1304	1-576-104-11	FUSE (D159:US, CND)	
⚠F1305	1-576-105-11	FUSE (D159:US, CND)	
⚠F1305	1-532-286-00	FUSE 2.5A (A17/D159:AEP, AE2, UK, IT, G)	
⚠F1306	1-576-105-11	FUSE (D159:US, CND)	
⚠F1306	1-532-286-00	FUSE 2.5A (A17/D159:AEP, AE2, UK, IT, G)	
S901	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)	
⚠T1301	1-423-434-11	TRANSFORMER, POWER (D159:AEP, AE2, UK, IT, G)	
⚠T1301	1-423-435-11	TRANSFORMER, POWER (D159:US, CND)	
⚠T1301	1-423-436-11	TRANSFORMER, POWER (A17)	
⚠VS1301	1-570-046-21	SWITCH, VOLTAGE CHANGE (A17)	

****

ACCESSORIES & PACKING MATERIALS
****

	1-466-926-11	COMMANDER, STANDARD (RM-S109)
	1-501-374-11	ANTENNA, LOOP (D159:AE2, IT/D159:IT)
	1-501-536-11	ANTENNA (D159:AE2, IT)
	1-696-860-11	CORD, CONNECTION 13P (D159:AE2, IT)
	2-181-754-21	COVER (MLY), BATTERY
*	3-703-713-41	STICKER, SONY SYMBOL (10)
	3-756-330-41	MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/PORTUGAL) (D159:AE2)
	3-756-330-51	MANUAL, INSTRUCTION (GERMAN/DUTCH/SWEDISH/ITALIAN) (D159:AE2, IT)
	4-957-498-01	INDIVIDUAL CARTON (D159:AE2, IT)
	4-958-606-01	CUSHION (D159:AE2, IT)

****

****
HARDWARE LIST
****

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-682-560-04	SCREW +BVTT 4X6 (S)

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

9-957-730-12

Sony Corporation
Audio Group

English
93H16Y0914-1
Printed in Germany
© 1993.8
Published by Audio Sector Quality Assurance Dept.